

# Town of Derry New Hampshire



## LAND DEVELOPMENT CONTROL REGULATIONS

**May 06, 2015**

<b>RECORD OF AMENDMENTS .....</b>	<b>3</b>
<b>PART 1 – GENERAL PROVISIONS.....</b>	<b>6</b>
<b>ARTICLE I - USE AND CONSTRUCTION.....</b>	<b>6</b>
Section 170-1 Interpretation, Conflict, and Severability .....	6
Section 170-2 Word Usage and Definitions .....	6
Section 170-3 Amendments .....	10
Section 170-4 When Effective .....	10
Section 170-5 Review of Developments of Regional Impact.....	10
<b>PART 2 – SUBDIVISION REGULATIONS .....</b>	<b>12</b>
<b>ARTICLE II – GENERAL PROVISIONS .....</b>	<b>12</b>
Section 170-6 Title.....	12
Section 170-7 Authority .....	12
Section 170-8 Purpose.....	12
Section 170-9 Applicability .....	13
Section 170-10 Appeals .....	13
Section 170-11 Modifications and Waivers .....	14
<b>ARTICLE III - APPLICATION AND APPROVAL PROCEDURES.....</b>	<b>15</b>
Section 170-12 Voluntary Mergers and Lot Line Adjustments.....	15
Section 170-13 Conceptual Consultation Phase .....	15
Section 170-14 Design Review Phase .....	16
Section 170-15 Final Application Phase.....	16
Section 170-16 Application for Special Permits Under Growth Management .....	17
Section 170-17 Fees and Costs.....	18
Section 170-18 Public Hearings.....	18
<b>ARTICLE IV - APPLICATION SUBMITTAL REQUIREMENTS .....</b>	<b>20</b>
Section 170-19 General Provisions .....	20
Section 170-20 Voluntary Mergers.....	21
Section 170-21 Expedited Subdivision Review of Minor Subdivisions and Lot Line Adjustments .....	21
Section 170-22 Conceptual Consultation Submittals .....	22
Section 170-23 Design Review Phase Submittals .....	22
Section 170-24 Final Application Phase Submittals .....	24
<b>ARTICLE V – DESIGN AND CONSTRUCTION STANDARDS .....</b>	<b>28</b>
Section 170-25 Lots .....	28
Section 170-26 Streets.....	30
Section 170-24 Sewers .....	35
Section 170-28 Water Mains .....	36
Section 170-29 Storm Drains.....	36
Section 170-30 Fire Protection.....	38
Section 170-31 Other Utilities.....	38
Section 170-32 Special Flood Hazard Areas .....	39
Section 170-33 Offsite Improvements .....	39

<b>ARTICLE VI - PERFORMANCE GUARANTEES AND PROCEDURES .....</b>	<b>40</b>
Section 170-34 General Provisions .....	40
Section 170-35 Performance Guarantee Requirements and Procedures	40
Section 170-36 Inspection Requirements .....	41
Section 170-37 As-Built Plan Requirements .....	41
Section 170-38 Release of Performance Guarantees.....	41
<b>ARTICLE VII - ADMINISTRATION AND ENFORCEMENT .....</b>	<b>42</b>
Section 170-39 General Requirements .....	42
Section 170-40 Construction Specifications.....	42
Section 170-41 Construction Monitoring and Inspection .....	42
Section 170-42 Violations and Penalties .....	43
Section 170-43 Active and Substantial Development and Building....	43
Section 170-44 Substantial Completion .....	43
<b>PART 3 – SITE PLAN REGULATIONS.....</b>	<b>44</b>
<b>ARTICLE VIII - GENERAL PROVISIONS .....</b>	<b>44</b>
Section 170-45 Title.....	44
Section 170-46 Authority .....	44
Section 170-47 Purpose.....	44
Section 170-48 Applicability.....	45
Section 170-49 Appeals .....	45
Section 170-50 Waivers .....	46
<b>ARTICLE IX - APPLICATION AND APPROVAL PROCEDURES .....</b>	<b>47</b>
Section 170-51 Site Plan Determination .....	47
Section 170-52 Conceptual Consultation Phase .....	47
Section 170-53 Design Review Phase .....	48
Section 170-54 Final Application Phase.....	48
Section 170-55 Application for Special Permits under Growth Management .....	49
Section 170-56 Fees and Costs.....	50
Section 170-57 Public Hearings .....	50
Section 170-58 General Requirements .....	52
Section 170-59 Requirements for Conceptual Consultation .....	53
Section 170-60 Design Review Phase Submittals .....	53
Section 170-61 Final Application Phase Submittals .....	54
Section 170-62 Access and Circulation Requirements.....	59
Section 170-63 Parking Requirements .....	60
Section 170-64 Landscape and Buffering Requirements .....	63
Section 170-65 Stormwater Management Requirements.....	66
Section 170-67 General Site Design Requirements .....	69
Section 170-68 Special Flood Hazard Areas .....	72
Section 170-69 General Provisions .....	73
Section 170-70 Performance Guarantee Requirements and Procedures	73
Section 170-71 Inspection Requirements .....	73
Section 170-72 As-Built Plan Requirements .....	73
Section 170-73 Release of Performance Guarantees.....	74
Section 170-74 General requirements .....	75

Section 170-75	Construction Specifications.....	75
Section 170-76	Construction Monitoring and Inspection .....	75
Section 170-77	Violations and Penalties.....	76
Section 170-78	Active and Substantial Development and Building....	76
Section 170-79	Substantial Completion .....	76

<b>ARTICLE XIV – ARCHITECTURAL DESIGN REVIEW REGULATIONS (Effective 7/20/05)</b> .....	<b>77</b>
Section 170-80 Findings .....	77
Section 170-81 Adoption .....	77
Section 170-82 Purpose.....	77
Section 170-83 Applicability.....	78
Section 170-84 Various Sections Of The Town .....	78
Section 170-85 General Requirements.....	79
Section 170-86 Design Elements .....	80
Section 170-87 Particular Building Types and Components.....	83
Section 170-88 Process .....	84

Minimum Lot Area by Soil Type .....	87
Table of Geometric Standards .....	89
Lot Size by Soil Type Calculation .....	90
Figure 1 - Typical Cross-Section / Service Road .....	91

**RECORD OF AMENDMENTS**

**SUBDIVISION REGULATIONS**

DATE ADOPTED	DATE ADOPTED
August 16, 1960	April 13, 1988
August 11, 1966	June 8 1988
January 11 & 18 1972	April 16, 1989
December 17, 1984 Re-Adopted	June 20, 1990
April 22, 1987	May 1991
October 28, 1987	October 28, 1985 - Site Plan Regulations Adopted
November 18, 1987	November 1, 1985 - Site Plan Regs Effective Date
March 23, 1988	April 26, 1989 - Revised
	November 15, 1989- Revised

**LAND DEVELOPMENT CONTROL REGULATIONS**

REVISION DATE	REVISION
September 25, 1991	Section III-H Approval Paragraph 7, added.
January 19, 1993	Section III-J Waiver Req. (Paragraph 2 added) Section IV, A.2 Flood Ins. Req. amended
September 29, 1993	Part 1, Section I-Authority, B-Site Plan Building Official replaced by PB

May 25, 1994	Delete reference to 1/3 reduction of lots serviced by a Community Well from Part 2-Design Requirements, Section V-Lots, C3d-Minimum Lot Sizes in its entirety and from the Lot Size by Soil Calculation Form
October 9, 1996	Add new section XIII - Fire Protection, Definitions - Municipal Wastewater System & Municipal Water Supply
June 4, 1997	<ul style="list-style-type: none"> <li>▪ Amend Part I, Section IV.C - Final Plat -new section “d” - .DXF or .DWG computer disk required.</li> <li>▪ Amend Part II, Section VI - Streets, E- Table of Geometric Standards.</li> <li>▪ Amend Part II, Section VI - Streets, General information, new sections 14 and 15 including Figure 1.</li> </ul>
February 17, 1999	Amend Part 1, Sections I & III – Deleted & replaced with new text
January 29, 2003	Recodified and Reformatted for Town of Derry General Code Book
May 17, 2005	FEMA
May 18, 2005	<ul style="list-style-type: none"> <li>▪ Article IV – Application, Section 170-23 Design Review Phase Submittals</li> <li>▪ Article V – Design &amp; Construction Standards, Section 170-26 Streets - Section 170-29 Storm drains</li> <li>▪ Article IX – Application and Approval Procedures - Section 170-56 Fees and Costs</li> <li>▪ Article XI – Design and Construction Standards, Section 170-67 General Site Design Requirements</li> <li>▪ Article XII – Performance Guarantees &amp; Procedures, Section 170-73 Release of Performance Guarantees</li> </ul>
July 20, 2005	New Article XIV, Sections 170-80 through 170-88 - Architectural Design Review Regulation
February 21, 2007	<ul style="list-style-type: none"> <li>▪ Article XI-Design and Constructions Standards-Section 170-62.A1 – Access &amp; Circulation Requirements</li> <li>▪ Article XI-Design &amp; Constructions Standards, Section 170-63.B4- Parking Density Requirements</li> </ul>
March 28, 2007	Several Sections – Definitions-Access, Street, Private Roads
January 16, 2008	<ul style="list-style-type: none"> <li>• Article III – Application and Approval Procedures – Section 170-17, Fees and Costs</li> <li>• Article IX – Application and Approval Procedures – Section 170-56, Fees and Costs</li> </ul>
June 18, 2008	<ul style="list-style-type: none"> <li>• Article III – Application and Approval Procedures – Section 170-17, Fees and Costs</li> <li>• Article IV, Application and Submittal Requirements - Section 170-24.C</li> <li>• Article V – Design and Construction Standards – Section 170-29, 170-30</li> <li>• Article VI – Performance Guarantees and Procedures – Section 170-37</li> <li>• Article IX – Application and Approval Procedures – Section 170-56, Fees and Costs</li> <li>• Article X – Application and Submittal Requirements – Section 170-61.C</li> <li>• Article X1- Design and Construction Standards – Section 170-65</li> </ul>

	<ul style="list-style-type: none"> <li>• Article XII – Performance Guarantees and Procedures – Section 170-37</li> </ul>
July 16, 2008	<ul style="list-style-type: none"> <li>• Article V – Design and Construction Standards – Section 170-26, Streets</li> </ul>
February 16, 2011	<ul style="list-style-type: none"> <li>• Article III – Application and Approval Procedures – Section 170-17, Fees and Costs</li> <li>• Article IX – Application and Approval Procedures – Section 170-56, Fees and Costs</li> </ul>
December 14, 2011	<ul style="list-style-type: none"> <li>• Article V Design and Construction Standards – Section 170-32, Special Flood Hazard Areas</li> <li>• Article XI Design and Construction Standards – Section 170-68, Special Flood Hazard Areas</li> </ul>
May 09, 2012	<ul style="list-style-type: none"> <li>• Article II, General Provisions – Section 170-11, Modifications and Waivers</li> <li>• Article VIII, General Provisions – Section 170-50, Waivers</li> </ul>
June 20, 2012	<ul style="list-style-type: none"> <li>• Article IV, Application Submittal Requirements – Section 170-24, Final Application Submittal</li> <li>• Article V, Design and Construction Standards – Section 170-26, Streets</li> </ul>
April 03, 2014	<ul style="list-style-type: none"> <li>• Article V, Design and Construction Standards – Section 170-30, Fire Protection</li> </ul>
June 05, 2014	<ul style="list-style-type: none"> <li>• Article IV, Application Submittal Requirements – Section 170-24, Final Application Submittal Requirements</li> <li>• Article X, Application Submittal Requirements – Section 170-61, Final Application Submittals</li> </ul>
March 04, 2015	<ul style="list-style-type: none"> <li>• Article XI, Design and Construction Standards – Section 170-63, Parking Requirements</li> </ul>
<b>May 06, 2015</b>	<ul style="list-style-type: none"> <li>• <b>Article XI, Design and Construction Standards - Section 170-63, Parking Requirements; Section 170-64, Landscape and Buffering Requirements</b></li> </ul>

## **PART 1 – GENERAL PROVISIONS**

### **ARTICLE I - USE AND CONSTRUCTION**

#### **Section 170-1 Interpretation, Conflict, and Severability**

- A. These Land Development Control Regulations shall be construed broadly to promote the purposes for which they are adopted.
- B. Whenever these regulations differ from those prescribed by any statute, ordinance or other regulation, that provision which imposes the greater restriction or the higher standard shall prevail.
- C. If any section, clause, provision, portion or phrase of these regulations shall, for any reason, be held invalid or unconstitutional by any court of competent jurisdiction, such holding shall not affect, impair or invalidate any other section, clause, provision, portion or phrase of these regulations.

#### **Section 170-2 Word Usage and Definitions**

- A. “Person” means any individual, firm, co-partnership, corporation, company, association, joint stock association or body politic, and includes any trustee, receiver, assignee, or other similar representative thereof.
- B. The present tense includes the future tense, the singular number includes the plural, and the plural number includes the singular.
- C. The words “shall” and “will” are mandatory: the word “may” is permissive.
- D. For any term not defined in these regulations, the definition, if any, given in the Chapter 165, Zoning, or applicable state statutes shall prevail. Terms and words not so specifically defined shall have their common meaning.
- E. Term definitions. As used in these regulations, the following terms shall have the meanings indicated:

ACCESS DRIVE – A private vehicular right of way providing access from an approved public street into a single multi-family residential or nonresidential building lot

ABUTTER – Any person whose property is located in New Hampshire and adjoins or is directly across the street or stream from the land under consideration by the Board. For purposes of receiving testimony only, and not for purposes of notification, the term “abutter” shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration. For the purposes of receipt of notification in the case of an abutting property being under a condominium or other collective form of ownership, the term abutter means the officers of the collective or association, as defined in RSA 356-B:3, XXIII.

**AISLE** - The area designed for regular vehicular passage providing access to and abutting on one or more sides to parking spaces.

**APPLICANT** – The owner and the person or persons duly authorized in writing by the owner(s) to act on behalf of the owner(s) in all matters concerning these regulations.

**APPROVED STREET** – A street, highway or private way laid out on a plat approved by the Planning Board and filed in the Registry of Deeds of Rockingham County and/or any road or highway having the status of a Class I – V Public Highway as described in RSA 229:5.

**BOARD** – The Planning Board for the Town of Derry established under the provisions of RSA 673.

**CERTIFIED SOIL SCIENTIST** – A person qualified in soil classification and mapping who is certified and licensed under applicable laws of the State of New Hampshire.

**CERTIFIED WETLAND SCIENTIST** – A person qualified to identify and delineate jurisdictional wetlands who is certified and licensed under applicable laws of the State of New Hampshire.

**COMMUNITY WASTEWATER SYSTEM** – A non-municipal wastewater system that serves two or more properties under a separate or common ownership.

**COMMUNITY WATER SYSTEM** – A non-municipal water system that serves two or more properties under a separate or common ownership.

**CUL-DE-SAC** – A street with only one outlet and having an appropriate vehicular turnaround for the safe and convenient reversal of traffic movement.

**DRIVEWAY** - A privately owned vehicular access intended to provide access from a street or access drive to a single primary residential building.

**EASEMENT** – Authorization by a property owner for another to use that owner's property for a specified purpose.

**ENGINEER** – A Professional Engineer licensed to practice in the State of New Hampshire.

**EXCESS DRAINAGE** – A condition where, after development of all or part of any subdivision, or after the ultimate build out of land having special permits pursuant to Section 165-115B(1) of Chapter 165, Zoning, inadequate provision has been made for the drainage created by or resulting from such development so as to create the reasonable likelihood of an adverse impact on land of another without the easement or license to do so.

**FRONTAGE** – That portion of a lot bordering on an approved street as defined herein.

**GEOGRAPHIC INFORMATION SYSTEM (GIS)** – The Town of Derry's computer based tool utilized for the mapping of land, roads, geometrical features and man-made improvements within the Town.

GOVERNMENTAL LAND USES –Those uses of land prescribed under RSA 674:54.

INTERNAL ACCESS DRIVE – A private vehicular right of way within a nonresidential or multi-family site providing access from an approved public street to an individual driveway or parking lots

LAND; REAL ESTATE – The words “land”, “lands” or “real estate” shall include lands, tenements, and all rights thereto and interests therein.

LOT – Either an existing parcel of land or a parcel of land to be created by an act of subdivision, merger or consolidation located within the Town of Derry. A lot is a parcel of land occupied, or to be occupied, by only one main building and the accessory building or uses customarily incidental to it, except as may otherwise be provided in Chapter 165, Zoning. A lot shall be of sufficient size to meet minimum zoning requirements for use, coverage and area, and to provide such yards and other open spaces as are required in Chapter 165, Zoning.

MAJOR SUBDIVISION – Any subdivision not meeting the definition of minor subdivision contained within these regulations.

MINOR SUBDIVISION – A subdivision which creates not more than 3 lots for building development purposes, or which does not involve the creation of lots for building development purposes, and which does not involve the construction of any new street. Lot line adjustment and voluntary lot consolidation proposals shall generally be treated as a minor subdivision proposal.

MUNICIPAL WASTEWATER SYSTEM – A wastewater collection, treatment, and disposal system that is owned and operated by a municipal or regional government; and or those systems which are public utilities pursuant to RSA 362, et seq., and subject to the regulation of the Public Utilities Commission regarding the provision of public utility services.

MUNICIPAL WATER SUPPLY – A water supply system that is owned and operated by a municipal or regional government: and or those systems which are public utilities pursuant to RSA 362, et seq., and subject to the regulation of the Public Utilities Commission regarding the provision of public utilities services.

OWNER –The person or persons who hold title to the land being subdivided or upon which a Site Plan is being proposed. Such party shall be as listed in the Rockingham County Registry of Deeds. Where ownership is as tenants in common, all of the said tenants in common shall be required to sign any document required to be signed by the owner. Where property is owned by joint tenants with rights of survivorship, all of the joint tenants shall sign any such document.

PARKING SPACE - An off street space sufficient in size to accommodate the parking of one motor vehicle exclusive of the area necessary for roads and aisles on any nonresidential lot or multi-family lot.

PARKING LOT - Area designed to accommodate the parking of vehicles, inclusive of the parking space and aisle, for single nonresidential or multi-family buildings containing three (3) or more units.

**PERFORMANCE GUARANTEE** – is a security that may be accepted in lieu of a requirement that certain improvements be made before the Planning Board approves a final subdivision or site plan, or as a condition of such approval.

**PLANNING DIRECTOR** – A duly designated planner of the Town of Derry or, if there is none, the person designated by the Town Administrator.

**PLAT** –The final map, drawing or chart, prepared by a licensed professional engineer or by a licensed land surveyor in accordance with RSA 674:37, on which the applicant's plan of subdivision or site usage is presented to the Derry Planning Board for approval and which, if approved, will be submitted in the form it has been approved to the Registry of Deeds for recording. No plat shall be recorded unless and until it shall have been approved by the Planning Board and its approval has been endorsed thereon, except as provided in RSA 676:18. II, II-a and III and RSA 676:4, I (c).

- **Public Street, Collector:** Collector roads and streets are primarily intended to carry an average daily traffic volume of 1,000 to 5,000 vehicles per day; serving to link service roads with arterial roads.
- **Public Street, Arterial:** Arterial roads and streets are those roads which carry in excess of 5,000 vehicles per day.
- **Public Street, Service:** Local roads and streets are primarily intended to carry an average daily traffic volume of 1,000 vehicles per day or less. In general, service roads are those roads which provide access from individual parcels of land to collector roads and in some cases to arterial roads.

**RIGHT OF WAY** – A section of land acquired by easement, reservation, dedication, prescription, or condemnation, duly recorded at the Rockingham County Registry of Deeds, and intended to be occupied by a road, crosswalk, railroad, utility lines, and/or other similar uses; and furthermore, the right to Passover the property of another. A road contains all the land within the right of way.

**SITE PLAN** –The drawing meeting the requirements of RSA 674:37 on which the applicant's plan of development for nonresidential or multi-family development is presented to the Board for approval and which, if approved, will be submitted to the Rockingham County Register of Deeds for recording.

**SLOPE** – The average steepness of the land surface under consideration. For the purpose of determining lot size categories, slope shall be determined by slope factors used by the National Cooperative Soil Survey soil classification (where B=0-8%; C is greater than 8% and less than 15% and less than 25%; and E is greater than or equal to 25%).

**SOIL TYPE** – A specific soil mapping unit as shown on a high intensity soil survey map prepared by a Certified Soil Scientist in accordance with standards contained in Special Publication No. 1 published by the Society of Soil Scientists of Northern New England.

**SUBDIVIDER** – See “applicant.”

**SUBDIVISION** –The division of the lot, tract or parcel of land into two or more lots, plats, sites or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance or building development. It includes the re-subdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided. The division of a parcel of land held in common and subsequently divided into parts among several owners shall be deemed a subdivision.

**TOWN ENGINEER** – A duly designated engineer of the Town of Derry or, if there is none, the person designated by the Town Administrator, including any independent consultant retained by the Town Engineer or by the Planning Board in connection with any plan or approval and/or for the inspection of any improvements pursuant to such approvals.

**VOLUNTARY (LOT) MERGER** –The joining or merger of two or more contiguous pre-existing approved or subdivided lots or parcels in common ownership under the provisions of RSA 674:39-a.

**WETLANDS** – Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. They include, but are not limited to: swamps, bogs, marshes, ponds, and lakes, as well as soils that are defined as poorly or very poorly drained.

### **Section 170-3 Amendments**

The Planning Board may amend these regulations from time to time in accordance with the provisions of RSA 675:6.

### **Section 170-4 When Effective**

These regulations shall take effect upon their adoption by the Planning Board.

### **Section 170-5 Review of Developments of Regional Impact**

A. Purpose. The purpose of this section is to:

1. Provide timely notice to potentially affected municipalities concerning proposed developments which are likely to have impacts beyond the boundaries of the Town of Derry.
2. Provide opportunities for the regional planning commission and the potentially affected municipalities to furnish timely input to the Town of Derry.
3. Encourage the Town of Derry to consider the interests of other potentially affected municipalities.
4. Fulfill the statutory requirements of RSA 36:54 through 36:58.

- B. Definition - Any development which the Planning Board determines could reasonably be expected to impact on a neighboring municipality, because of factors such as, but not limited to, the following:
1. Relative size or number of dwelling units as compared with existing stock.
  2. Proximity to the borders of a neighboring community.
  3. Transportation networks.
  4. Anticipated emissions such as light, noise, smoke, odors, or particles.
  5. Proximity to aquifers or surface waters which transcend municipal boundaries.
  6. Shared facilities such as schools and solid waste disposal facilities.
- C. Review Required: The Derry Planning Board, upon receipt of an application for development, shall review it promptly and determine whether or not the development, if approved, reasonably could be construed as having the potential for regional impact. Doubt concerning regional impact shall be resolved in a determination that the development has a potential regional impact.
- D. Procedure:
1. Upon determination that a proposed development has a potential regional impact, the Derry Planning Board shall afford the regional planning commission and the affected municipalities the status of abutters as defined in RSA 672:3 for the limited purpose of providing notice and giving testimony.
  2. Within 72 hours of reaching a decision regarding a development of regional impact, the Derry Planning Board shall, by certified mail, furnish the regional planning commission and the affected municipalities with copies of the minutes of the meeting at which the decision was made.
  3. At least 14 days prior to public hearing, the Derry Planning Board shall notify, by certified mail, all affected municipalities and the regional planning commission of the date, time, and place of the hearing and their right to testify concerning the development.
- E. Applicability: The provisions of this section shall supersede any contrary or inconsistent provisions of local land use regulations enacted under RSA 155-E and RSA 674.

## **PART 2 – SUBDIVISION REGULATIONS**

### **ARTICLE II – GENERAL PROVISIONS**

#### **Section 170-6 Title**

Part 2 of these Land Development Control Regulations shall be known as the “Subdivision Regulations of the Town of Derry, New Hampshire.”

#### **Section 170-7 Authority**

These regulations have been prepared in accordance with the authority vested in the Town of Derry Planning Board by vote of Town Meeting on March 8, 1960, and as recorded in the Rockingham County Registry of Deeds Book 1542, Page 815, and in accordance with RSA 674:35, as amended.

#### **Section 170-8 Purpose**

The purpose of these regulations is to:

- A. Uphold the purposes set forth in RSA 674:36, including to:
  - 1. Provide against such scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation, schools, fire protection, or other public services, or necessitate the excessive expenditure of public funds for the supply of such services;
  - 2. Provide for the harmonious development of the town and its environs;
  - 3. Require the proper arrangement and coordination of streets within subdivisions in relation to other existing or planned streets or with features of the official map of the town;
  - 4. Provide for open spaces of adequate proportions;
  - 5. Require suitably located streets of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air, and access for firefighting apparatus and equipment to buildings, and be coordinated so as to compose a convenient system;
  - 6. Require, in proper cases, that plats showing new streets or narrowing or widening of such streets submitted to the Planning Board for approval shall show a park or parks suitably located for playground or other recreational purposes;
  - 7. Require that proposed parks shall be of reasonable size for neighborhood playgrounds or other recreational uses;
  - 8. Require that the land indicated on plats submitted to the Planning Board shall be of such character that it can be used for building purposes without danger to health;

9. Prescribe minimum areas of lots so as to assure conformance with local zoning ordinances and to assure such additional areas as may be needed for each lot for on-site sanitary facilities; and
  10. Include provisions, which will tend to create conditions favorable to health, safety, convenience, or prosperity.
- B. Assist the Planning Board in carrying out the objectives Chapter 165, Zoning, including the provisions of Article XIV, Growth Management, of Chapter 165.
  - C. Assist the Planning Board in carrying out the objectives of the Town's Master Plan.
  - D. Provide for the timely installation of off-site and on-site improvements necessitated by the development and for the payment of such improvement costs.

#### **Section 170-9 Applicability**

- A. These regulations shall apply to all subdivision of land, as defined in Section 170-2, located within the boundaries of the Town of Derry.
- B. No land shall be subdivided, nor any parcel of land proposed in the subdivision be sold, leased, transferred or developed until:
  - i. The subdivider has obtained final approval of the subdivision plan; and
  - ii. The final subdivision plat has been recorded at the Rockingham County Registry of Deeds.
- C. Notwithstanding these regulations, any person may, without Planning Board approval, record a plan which depicts existing public or private streets already established, pursuant to RSA 676:18 et seq., provided however, that the person provide a copy of said plan to the Planning Board prior to recording.

#### **Section 170-10 Appeals**

- A. Any person aggrieved by any decision of the Planning Board upon these regulations may appeal to the Superior Court as provided in RSA 677:15.
- B. Any person aggrieved by a decision of the Planning Board concerning subdivision approval or disapproval may appeal to the Zoning Board of Adjustment if the decision was based upon the terms of Chapter 165, Zoning, as provided in RSA 676:5, III.

## **Section 170-11 Modifications and Waivers**

**Pursuant to RSA 674:36, II (n), the Planning Board may include provisions for waiver of any portion of the regulations.**

- A. Where the Planning Board finds that unnecessary hardship may result from strict compliance with these regulations with respect to a particular tract of land, the Board may modify or waive these regulations so that substantial justice may be done and the public interest secured, provided that:
  - 1. The modification or waiver shall not have the effect of nullifying the intent and purpose of these regulations;
  - 2. The Planning Board requires such conditions as will, in its judgment, secure the objectives of the regulations which are modified or waived;
  - 3. The modification or waiver is requested in writing;
  - 4. The modification or waiver is based on evidence presented to the Board by the applicant;
  - 5. The Planning Board formally votes on such modification or waiver; and
  - 6. The modification or waiver is noted on the Final approved plan.
- B. The requirements of Section 170-32 of these regulations pertaining to “Special Flood Hazard Areas” shall not be waived.

## **ARTICLE III - APPLICATION AND APPROVAL PROCEDURES**

### **Section 170-12 Voluntary Mergers and Lot Line Adjustments**

- A. Upon application by the owner, the Planning Board shall approve the merger of two or more contiguous preexisting approved or subdivided lots or parcels for the purpose of municipal regulation and taxation, unless the merger would create a violation of current regulations. No public hearing or notice shall be required. A notice of the merger shall be recorded at the Rockingham County Registry of Deeds and shall be filed with or mailed to the Town Assessor.
  
- B. The Planning Board may approve minor lot line adjustments or boundary agreements which do not create buildable lots. Notice as required by RSA 674:4, I (d) shall be given to all abutters and holders of conservation, preservation or agricultural preservation restrictions prior to approval and may be heard on the application upon request of any abutter or holder of conservation, preservation or agricultural preservation restrictions.

### **Section 170-13 Conceptual Consultation Phase**

- A. Prior to formal application for subdivision approval, an applicant, or his authorized agent, may request an informal consultation under RSA 676:4 II (a) with the Board to discuss the proposal and preliminary concepts associated with the proposed development, and to provide the Board an opportunity to provide its input in order to assure conformance with current regulations.
  
- B. This consultation shall neither bind the applicant nor the Board.
  
- C. This consultation shall be limited to conceptual discussions of the proposed development and in general terms of the desirability of the type of development and its conformance to the Master Plan.
  
- D. This consultation shall occur only at a regular or special meeting of the Board.
  
- E. This consultation shall not require formal public notification, unless in the opinion of the Planning Director the anticipated topics of discussion contain specific details of a future subdivision proposal generally reserved for the Design Review Phase or final application phase, in which case the consultation must be held under the provisions of Section 170-14, Design review phase, of these regulations.
  
- F. Plan review under this Section shall not constitute formal acceptance by the Board under RSA 676:4, I (c); nor shall any plans submitted for conceptual consultation be deemed to be a completed application under that section.

#### **Section 170-14 Design Review Phase**

- A. Design review phase is not required, but is strongly recommended, particularly in cases of developments of significant size or complexity.
- B. Design review phase shall be used for design review under RSA 676:4, II (b). In the Design Review, the Board may engage in non-binding discussion with the applicant which may extend beyond conceptual and general terms.
- C. Design review phase shall not constitute a completed application under these regulations or under RSA 676:4, I (c); nor shall any plan submitted for design review be deemed to be a completed application under this section.
- D. Design review phase and review shall not constitute formal acceptance by the Board under RSA 676:4, I (c).
- E. Design review phase review may occur only after notice and publication as prescribed under RSA 676:4, I (d).
- F. Eight (8) copies of the Design review phase submittal as described in Section 170-23 of these regulations shall be filed with the Board at the time of design review phase application. The Board will then study the preliminary layout and proposed streets in connection with the topography of the area, the existing requirements of the community, and the best use of the land to be subdivided and that of the adjoining areas.
- G. The Board may hold discussions with the applicant or his agents and may hear and confer with other parties whose interests may be affected by the proposed layout. After such discussions, the Board shall communicate to the developer the specific changes, if any, which it may require as prerequisite to the subsequent approval of the final subdivision plat.

#### **Section 170-15 Final Application Phase**

- A. At the initial public hearing of a final subdivision application, the Board shall determine whether or not the submitted application is complete according to the regulations of the Board as set out in Section 170-24 of these regulations and pursuant to RSA 676:4, I c. Such determination shall be made by vote of the Board within 30 days of delivery of the application. If the Board determines that the application is not complete, the Board shall notify the applicant in writing of the determination in accordance with RSA 676:3, and shall state in that notice the information, procedure or other requirement necessary for the application to be complete.
- B. If the Board determines that a final subdivision application is complete according to the regulations of the Board, the Board shall vote to accept the application for jurisdiction. The Board shall then begin formal consideration of the application.
- C. Before the final application is approved or disapproved, the Board shall hold a public hearing on the application.

- D. The Board shall vote to approve, approve subject to conditions, or disapprove the application within 65 days of the vote that the application is complete unless:
  - 1. upon application by the Planning Board, the Town Council granted an extension not to exceed an additional 90 days;  
or
  - 2. the applicant waives this requirement in writing and consents to a mutually agreeable extension of time.
- E. If the Planning Board fails to act within the time specified by these regulations, RSA 676:4, or any previously agreed extension, then the applicant may apply to the Town Council for relief as described in RSA 676:4, I (c).
- F. The Town Council is hereby specified as the municipal Board which shall issue on behalf of the Board, a certificate of failure on the part of the Planning Board to take action on approval or disapproval of a plat submitted to it, as provided in RSA 676:4, I (C) (1).

#### **Section 170-16 Application for Special Permits Under Growth Management**

- A. Unless exempted under the provisions of Section 165-115A.2 of Chapter 165, Zoning, every subdivision applicant must complete an application for special permit under the Growth Management Ordinance (GMO) to be submitted to the Planning Director at the same time as, and as a part of, the final application. No final application shall be deemed to be complete under these regulations unless and until the application for special permit has been submitted and a report thereon, as required by Section 165-115B.1 of Chapter 165, Zoning, has been submitted to the Planning Board.
- B. If the proposed subdivision does not create lots which are controlled by the GMO, then no further action is needed under this section.
- C. The application for subdivision, in addition to all other requirements set out in these regulations, must include the following;
  - 1. A completed Special Permit application, including a calculation of development points based on the present Capital Improvements Plan;
  - 2. A map showing the location of the proposed subdivision along with the location of abutting land holdings of the applicant or by entities owned or controlled by the applicant; and the extent of land proposed for development presently or in the future; and
  - 3. Other information required by the Planning Director in order to appropriately evaluate the application.

- D. When the Planning Director receives a Special Permit application under the Growth Management Ordinance (GMO), the Planning Director shall review the application.
1. The Planning Director may request reports from appropriate town or school officials or agencies.
  2. Within 20 days of submission of a special permit application, the Planning Director shall notify the applicant and the Planning Board of his findings on the application, including the how many development points the proposal is eligible to claim.
  3. The Planning Board shall review the special permit application in conjunction with its subdivision review.
  4. The Planning Board's decision on the approval or disapproval of the subdivision shall set out the following: the total number of special permits for which the development is eligible; the number and identity of lots or units which are allocated to the basic development right; and the number and identity of lots or units which constitute the additional development right, and the years in which these additional development rights are exercisable based on the current long term Capital Improvement Plan as adopted by the Planning Board pursuant to Section 165-117 of Chapter 165, Zoning.

#### **Section 170-17 Fees and Costs**

- A. The following fees shall be paid at the time of application.
1. Voluntary Merger \$20.00 plus recording fee
  2. Lot line adjustment \$100.00 per lot
  3. Minor subdivision/Condominiums: \$175.00 plus \$50.00 per lot/unit  
Major subdivision: \$200.00 plus \$100.00 per lot
  4. Notice Fee: The current cost of certified/return receipt mail postage per abutter or other person receiving notice, plus \$3.00 administrative fee per notice. (.
  5. Legal Notice: \$50.00
  6. Recording Fee: Per sheet/document fee for plans and documents, according to the most recent fees established by the Rockingham County Registry of Deeds plus a 5% administrative fee. In addition, there is a \$25.00 LCHIP surcharge for each applicable recording.
    - a. External review fees will be provided by the Planning Director and are due at the time of application. The applicant is responsible for all fees incurred by the town for external review of the application.
- B. Plan review fees shall not apply to voluntary mergers or lot line adjustments.

#### **Section 170-18 Public Hearings**

- A. Whenever a public hearing is required by these regulations or by applicable statutes, the following procedures shall be used.

- B. The applicant shall be present at the public hearing. If the applicant is not the owner of the parcel under review, the applicant shall provide written authorization, containing the notarized signature of the owner(s), authorizing the applicant to act as an agent, for and on behalf of the owner(s), at such public hearings, and authorizing the agent to make all decisions and commitments with respect to the Board's review of the proposal which the owner(s) could make if personally present.
- C. Notice of the application shall be sent by certified mail as least 10 days prior to the public hearing to the following persons:
1. Abutters as defined in Section 170-2 of these regulations;
  2. All property owners within 200 feet of the subject property as delineated by the Town's GIS system;
  3. The applicant and current property owner;
  4. Holders of land conservation, preservation or agricultural preservation restriction; and
  5. Every engineer, architect, land surveyor, soil scientist, or wetlands scientist whose professional seal appears on the plat submitted to the Board.
- D. Notice to the general public shall be given by posting in two public places and by publishing in a newspaper of general circulation at least 10 days prior to the public hearing.
- E. All notices shall include a general description of the proposal, the applicant's name, the location of the proposal, the date, time and place of the public hearing, and the proposed actions to be taken by the Board.
- F. Additional notice is not required for additional hearings on a proposal if the date, time and place of the additional hearing is made known at the prior hearing and duly recorded in the official minutes of the same.
- G. At the public hearing, any applicant, abutter, holder of conservation, preservation or agricultural preservation restriction, or any person with a direct interest in the matter may testify in person or in writing. Other persons may testify as permitted by the Board.

## ARTICLE IV - APPLICATION SUBMITTAL REQUIREMENTS

### Section 170-19 General Provisions

- A. Prior to formal application for any subdivision approval, the applicant is encouraged to meet with the Planning Director to review the proposal.
- B. Any application where abutter notification is required shall be filed at the Planning Board office not less than 15 days before any regularly scheduled meeting.
- C. The Planning Board office shall provide the applicant with a receipt stating the date, time of the application and all fees received, if so requested by the applicant or his/her agent at the time of application delivery.
- D. An application which has been submitted to the Planning Board office for submission to the Board, shall not be supplemented, revised nor modified after notice of public hearing has been given, except upon vote of the Planning Board at said hearing.
- E. An application may be withdrawn prior to hearing, however, all application fees shall be forfeited and the applicant shall remain liable for all consultants' fees incurred prior to withdrawal of the application.
- F. All applications will be scheduled for action by the Board in the order in which they are received.
- G. By filing an application with the Board, the applicant, including all the applicant's agents, consultants and representatives, consents to the review of the application by independent consultants retained by Board, at the applicant's expense, for the purpose of:
  - 1. Confirming that the application conforms with applicable state and local requirements; and
  - 2. Recommending to the Board any additional studies or investigations and/or information from land surveyors, engineers, architects, attorneys, soil scientists, wetland scientists, or others with expertise in a particular field that could facilitate the Board's actions on the application.
- H. All plans submitted to the Board for review shall be prepared by a Professional Engineer or Land Surveyor, as applicable, who is licensed to practice in the State of New Hampshire.
- I. Failure to comply with these application procedures or failure to comply with all applicable state and federal laws, ordinances and regulations shall be grounds for disapproval or rejection of the application, as applicable.

### **Section 170-20 Voluntary Mergers**

- A. Any owner of two or more contiguous pre-existing approved or subdivided lots or parcels who wish to merge them for municipal regulation and taxation purposes may do so by applying to the Planning Board.
- B. Except where such merger would create a violation of then current ordinances or regulations, all such requests shall be approved, and no public hearing or notice shall be required.
- C. No new survey plat shall need to be submitted to the Planning Board with an application for a voluntary merger, nor need to be recorded, but a notice of merger, sufficient to identify the relevant parcels and endorsed by the Planning Board, shall be filed for recording in the Registry of Deeds, and a copy mailed to the Derry Assessing Department.
- D. No parcel or parcels merged under these provisions shall thereafter be separately transferred without subdivision approval.

### **Section 170-21 Expedited Subdivision Review of Minor Subdivisions and Lot Line Adjustments**

- A. Minor subdivisions, as defined in Section 170-2 of these regulations; and lot line adjustment proposals shall be eligible for expedited review by the Planning Board under the provisions of RSA 676:4, III.
- B. Upon receipt of an application for a minor subdivision or lot line adjustment, the Planning Board shall cause notice of such application to be given pursuant to RSA 676:4, I (d); and place the application on a future agenda of the Board. A public hearing, with notice as provided for in RSA 676:4, I (d) shall be held only if requested by the applicant, abutters, or holders of conservation, preservation, or agricultural preservation restrictions any time prior to approval or disapproval of the application, or if the Planning Board determines to hold a hearing.
- C. In order to be considered by the Planning Board, the applicant shall submit a completed minor subdivision review or lot line adjustment application, a completed checklist, and all required fees, together with appropriate plans meeting the requirements of Subsection D of this section.
- D. The final application shall be accompanied by eight (8) copies of the proposed subdivision and/or lot line adjustment plans, which shall include information outlined under Sections 170-24A.1 through 13 of these regulations. All plans submitted shall conform to the requirements of Section 170-24C and include an electronic copy of the final plat conforming with Section 170-24C of these regulations.

## **Section 170-22 Conceptual Consultation Submittals**

- A. For conceptual consultation, an applicant should provide information sufficient for the Planning Board to give meaningful comments.
- B. At a minimum, the applicant should provide:
  - 1. a preliminary drawing or sketch of the proposal which shows approximate number of lots;
  - 2. the general location of the lots;
  - 3. the general layout of existing and proposed streets;
  - 4. the proposed method for water supply and sanitary sewage disposal; and
  - 5. the extent and location of off-site improvements, if any.
- C. Applicant should provide information on how the subdivision will comply with the terms of the Growth Management Ordinance, and a general schedule for development of the subdivision under the GMO.
- D. The conceptual plan should include a map showing the location of abutting land holdings of the applicant or of entities owned or controlled by the applicant and the extent of land proposed for development presently or in the future in accordance with Section 165-115B.1 of Chapter 165, Zoning,

## **Section 170-23 Design Review Phase Submittals**

- A. Presentation requirements:
  - 1. Scale of all general drawings shall be 100 feet to the inch or less for all design review phase submittals, and shall be limited to a sheet size of 22 inches by 34 inches with a one-inch margin on three sides for binding. Scale of plan view drawings for proposed grading, utilities, or configurations shall be 50 feet to the inch or less to appropriately depict all design information. (Effective 5/18/05)
  - 2. Lettering size shall be not less than 18 (0.12) inch.
  - 3. If more than one sheet is necessary to show the entire subdivision at the required scale, an index plan at a scale adequate to show the entire subdivision tract on one plan sheet shall be provided and shall be drafted so as to create a graphical index of sheets.
  - 4. All match lines shall be clearly shown and labeled.
- B. The design review application shall be accompanied by 8 copies of the proposed subdivision plan which shall include the following information:
  - 1. Proposed subdivision name, north arrow, scale, and date of preparation.
  - 2. Boundary information prepared from existing deeds and field information. Distances may be shown to the nearest foot and bearings may be shown to the nearest one-minute.

3. Names, addresses of the: owner(s) of record; applicant; and engineer and/or land surveyor.
  4. Locust map at a scale of 2,000 feet to the inch or less.
  5. Abutting lot lines, streets, alleys, easements, parks, public open spaces, zoning districts. All shall be clearly labeled and tax map numbers indicated where applicable. Name and addresses of all abutters shall be included and shall also be submitted on a separate sheet of paper.
  6. Proposed location of all lots and/or parcels; lot number or parcel designation; scaled dimensions; and area of each proposed lot in square feet and in acres.
  7. Proposed location, name, width and dimensions of all proposed streets. Dimensions shall include lengths of tangents, and radius and length of all curves. Where the design review phase layout submitted covers only a part of the subdivider's entire holding, a sketch of the prospective future street system of the part not submitted will be considered in light of adjustments and connections with the street system of the part submitted.
  8. Location and dimensions of all easements, applicable building setbacks and other restrictions imposed by Chapter 165, Zoning.
  9. Existing topography showing surface contours at an interval of two feet or less, watercourses, ponds, standing water, wetlands, rock outcrops and ledges, tree lines, utility poles, buildings, pavement and gravel areas, and other physical features as may be found. Topography shall extend a minimum of 50 feet beyond the subdivision boundary.
  10. Existing and proposed water mains, sanitary sewers, storm sewers and culverts including size, material and direction of flow. If municipal water and sewer systems will not be utilized, alternate means shall be clearly stated and shown.
  11. Preliminary designs of any bridges or other structures which may be required.
  12. Preliminary drainage report and calculations.
  13. Drainage plan showing the following: the direction of runoff, both existing and proposed, through the use of arrows; the existing and proposed methods of handling storm water runoff; and the location, elevation and size of all catch basins, storm sewers, culverts, drainage ditches, swales and retention/detention basins; and information required in Section 170-24A.23 et seq.
  14. High intensity soil survey mapping, showing soil types and locations for subdivisions which will not utilize municipal sewers.
  15. Wetlands mapping depicting and defining all areas of jurisdictional wetland which exist on or within 75-feet of the subject parcel.
- C The applicant will submit a completed design review application; a completed design review application checklist; and all required fees.

## Section 170-24 Final Application Phase Submittals

- A. A complete Final Application for the purposes of these regulations and for the purposes of RSA 676:4, I (c) shall be accompanied by nineteen (19) copies of the proposed plans [three (3) full size sets and fifteen (15) 11 x 17 sets], which shall include the following information:
1. Proposed subdivision name or identifying title, name and address of the owner of record and subdivider, and the name of the consultant(s), date, scale, north point, lot numbers, locus map at a scale of 2,000 feet to the inch or less, revision block, surveyor's certifications and plan notes.
  2. The area of the parcel, street frontage and zoning requirements for minimum lot size and frontage.
  3. Zoning classification(s) of the parcel and the location of the zoning districts.
  4. Sufficient data to determine readily the location, bearing and length of all street lines, lot lines, boundary lines and to be able to reproduce such lines upon the ground. All dimensions shall be shown to the hundredth of a foot and bearings to the nearest one second. The error of closure shall not exceed 1 in 10,000. The Final Plat shall show the boundaries of the property, the location and description of all existing and proposed monumentation, a benchmark referencing U.S.G.S. Datum and shall be prepared and shown on a plan(s) and shall be sealed by a Licensed Land Surveyor.
  5. Location and description of existing and proposed boundary monumentation necessary to fulfill the requirements of Section 170-25G of these regulations. Horizontal and vertical features shall be adjusted to the New Hampshire State Plane Coordinate System (Second Order – Class II, NAD 83/92-NGVD88), shown at two (2) boundary corners.
  6. Street lines, building setback lines, pedestrian ways, lot lines, reservations, easements and areas to be dedicated to public use and areas, the title to which are reserved by the applicant/owner.
  7. All stipulations and restrictions intended to remain in perpetuity shall be shown on the Final Plat.
  8. A signature and title box with a place for signature and date of approval by the Board, shall be placed on each recordable sheet in the lower right hand corner of the sheet. A note shall appear on the project plans indicating the total number of sheets in the plan set; which sheets will be recorded upon approval; and that the full set of project plans is on file at the Derry Planning Department.
  9. Tax map and lot numbers of all abutting properties, together with abutting landowner names and addresses, shall be shown on the Final Plat.
  10. For subdivisions of existing lots of record, the applicant shall obtain a house number for each lot in the subdivision from the Chief of the Fire Department. Should a property be subdivided which has already been assigned a house

number, appropriate modification may be required by the Fire Chief. For new subdivisions, the applicant shall provide a proposed street name and proposed house numbers that meet the standards of the most recent amendment of the Addressing Standards Guide for E-911, prepared by the New Hampshire Department of Safety, Division of Emergency Services, Bureau of Emergency Communications. An 11 x 17 sheet with the proposed street names and house numbers shall be provided to the Fire Chief (or his designee) for approval prior to submittal to the Planning Board.

11. Two foot contour interval topographical survey data shall be prepared, shown on a plan(s), and shall be certified by a Licensed Land Surveyor. All topographical data shown shall be referenced to USGS Datum (NGVD 1929).
12. High intensity soil survey mapping (showing soil types and locations) shall be prepared, shown on a plan(s), and shall be sealed by a certified soil scientist for subdivisions which will not utilize public sewers.
13. Wetlands mapping shall be prepared, shown on a plan(s), and shall be sealed by a certified wetland scientist.
14. Drainage calculations shall be prepared and sealed by a licensed professional engineer; the design of proposed drainage improvements shall be shown on a plan(s).
15. Subdivision plans shall include plans for controlling erosion and sedimentation. Acceptable methods for erosion and sediment control measures include those as outlined in "Erosion and Sediment Control Design Handbook for Development Areas of New Hampshire" as prepared by USDA SCS.
16. Sanitary sewer design calculations shall be prepared, when applicable, sealed by a licensed professional engineer; and proposed sanitary sewer improvements shall be shown on the plan(s).
17. Water distribution design calculations shall be prepared and sealed by a licensed professional engineer; and proposed water distribution system improvements shall be shown on the plan(s).
18. Traffic Impact Statements (TIS), when required, shall be prepared and sealed by a licensed professional engineer. The scope of a TIS shall be as directed by the Planning Director in conjunction with the Town Engineer.
19. Drawings required with the Final Plat shall be prepared, and sealed by a licensed professional engineer and shall include:
  - a. Profiles of all proposed streets, water mains, sewers and open waterways with a horizontal scale of 1 inch to 50 feet, and vertical scale of 1 inch to 5 feet. All elevations shall refer to an established benchmark.
  - b. Drainage, sanitary sewer and water distribution plans subject to the following requirements:

- i. Outlines of streets, lots, easements, etc. as shown on the final plan with distances to the nearest foot;
  - ii. Location of all manholes, catch basins, hydrants, structures, downstream drainage facilities, as required under sub-section A.23 et seq., and utility poles or underground lines and pipes;
  - iii. Sizes and type or class of all pipe, including storm sewer, sanitary sewer, water and gas mains and service stubs;
  - iv. Location, type and detailing design of special structures or bridges; and
  - v. Proposed tax map and lot number for each lot.
20. Design plans and construction details, as applicable, for providing fire protection systems complying with the requirements of the Growth Management Ordinance.
  21. Copies of all approved state and federal project permits required under the subdivision proposal in question. All permit numbers shall be noted on the final subdivision plat.
  22. A block shall be placed on the cover sheet of each subdivision plan for signatures by: the Public Works Director; Code Enforcement Officer; Derry Fire Department; Conservation Commission Chair; and Police Department, or their designees. Prior to submission of application, applicant shall review the proposed subdivision plan with each party noted above and obtain said signatures.
  23. An application for special permit pursuant to Section 165-115B.1 of Chapter 165, Zoning, in such form as the Planning Director shall from time to time require, certified as to the accuracy of the data therein by the owner and by the owner's licensed Professional Engineer or Licensed Land Surveyor, as to the nature of the information provided shall require. Such application shall address, at a minimum:
    - a. A map showing the location of all abutting land, as defined in Section 165-115B.1 of Chapter 165, Zoning showing the ultimate development plan for all of the said abutting land; and
    - b. Information sufficient for and in such form as shall be necessary to determine the eligibility for development points as set forth in Section 165-115C of Chapter 165, Zoning.
- B. Drawing format – All information shown on drawings shall be left to right reading, with the lettering shown in a plane parallel with the bottom edge of the drawing. If dimensions or other data have to be shown in a plane other than parallel with the bottom of the drawing, the lettering placement in all planes shall be such that the information is readable as the drawing is rotated clockwise. The type of lettering shown on the drawings shall be vertical uppercase Gothic. The size of lettering shall be a minimum of 18 (.12) inch high, which shall be used for the majority of information shown on the drawing. Space between adjacent one-eighth inch high characters shall be such as to not exceed a maximum of ten characters to the inch.

- C. All plans shall be submitted to the Planning Director in the two (2) electronic formats noted below.
1. Adobe Acrobat pdf.
  2. Drawing file: Two formats shall be submitted: a .dxf (Drawing Exchange File) format and a .dwg, (AutoCad drawing format).
  3. Electronic Filing Requirements: The above shall be accomplished with the following guidelines:
    1. Horizontal and vertical features shall be adjusted to the New Hampshire State Plane Coordinate System (Second Order – Class II, NAD 83/92-NGVD88).
    2. All digital Files shall be submitted on a CD/DVD. No other form of submittal will be accepted.
    3. The following information will be labeled on the disk: file name(s); property owner name; parcel identification number (tax map and lot number); and name of submitting consultant. The file name format shall be as follows: MapLot\_ProjectName\_Owner(lastname)\_Consultant.xxx [example: 30060\_MunicipalCenter\_TownOfDerry\_ABCSurvey.dwg].
    - d. The submitted drawing format shall be rotated to grid (NAD 83/92);
    - e. Horizontal control points shall have an adjusted accuracy of 1:10,000 (Third Order, Class I);
    - f. The referenced entities and their properties shall correspond to the following:
      - i. The digital file shall have a layer named “NHSPCS”. NAD83 referenced points and the easting, northing and vertical descriptions of the required points shall be annotated on this layer. The NHSPCS layer shall be magenta in color.
      - ii. All lines representing property lines shall consist of continuous line work snapped to endpoints. Stonewall representations, unless created using a line type will not be accepted.

## ARTICLE V – DESIGN AND CONSTRUCTION STANDARDS

### Section 170-25 Lots

#### A. General Requirements.

1. Each platted lot shall conform to Chapter 165, Zoning, of the Code of the Town of Derry.
2. Whenever possible, side lot lines shall substantially be at right angles or radial to streets.
3. Each lot must front on an approved street.
4. Land of such character that it cannot be safely used for building purposes because of exceptional danger to health or peril from fire, excess drainage, flood, or other menace shall not be platted for residential occupancy, nor for such other uses as may increase danger to health, life, or property or aggravate the flood hazard, until appropriate measures have been taken by the owner or his agent to lessen the hazards.
5. Each lot shall have its driveway access through its own frontage, and no driveway may be laid out such that its curb cut will be closer than 75 feet to an intersection of public streets.
6. Minimum frontage requirements of Chapter 165, Zoning, must be continuous and uninterrupted.

B. Minimum lot sizes, unsewered areas. In the absence of municipal sewerage facilities, minimum lot sizes within all subdivisions shall, in addition to meeting the requirements of Chapter 165, Zoning, for the district wherein the subdivision is proposed, also meet the lot area requirements specified in Table A, "Minimum Lot Area by Soil Type." The form entitled "Lot Area by Soil Type Calculation", shall be used for all lot area determinations referred to herein. This requirement is subject to the following qualifications:

1. Where more than one soil type is found on a lot, the methodology of the form titled "Lot Area by Soil Type Calculation" shall be used to determine the minimum lot area.
2. Poorly and very poorly drained soils may be used as part of the computed lot area according to the following:
  - i. Areas mapped as poorly drained soils may be utilized to fulfill twenty five percent (25%) of the minimum required lot area provided that the non-wetland area is sufficient in extent and configuration to adequately accommodate all required utilities such as sewage disposal and water supply, including primary and reserve leachfield locations;
  - ii. Areas designated as very poorly drained, fresh or saltwater marsh or alluvial soils shall not be utilized to fulfill minimum lot area; and

- iii. Except as set forth in Chapter 165, Zoning, no subsurface wastewater disposal system shall be constructed within 75 feet of any area of poorly or very poorly drained soil which also has been designated as a wetland under the items of Chapter 165, Zoning.
3. Minimum lot areas for residential developments with greater than four bedrooms per unit and for commercial and industrial developments shall be determined as follows:
- i. For single family residential use with five or more bedrooms per unit, the minimum lot area shall be proportionately larger than the lot area indicated in Table A as determined by the formula:

$$\text{Lot Size (s.f.)} = \frac{\# \text{ of Bedrooms}}{4} \times (\text{Lot size from Table A})$$

- ii. For multi-family residential, commercial and industrial uses, required lot areas will be determined by the formula:

$$\text{Lot Size (s.f.)} = \frac{\text{Gal. of Wastewater/Day}}{1837 \text{ (gpd/40,000 ft.)}} \times \text{Lot Size from Table A} + \text{Land Required for well radius}$$

- iii. Design flow, measured in gallons of wastewater discharged per day shall be determined from Table 1008-1 "Unit Design Flow Figures" contained in Part ENV-WS 1008.03 of the New Hampshire Code of Administrative Rules (August, 1999 edition).

C. Determination of Soil Type

1. High intensity soil survey mapping utilized by any applicant in demonstrating compliance with the minimum requirements of this Section shall be prepared by a Certified Soil Scientist in accordance with those standards established in a publication entitled High Intensity Soil Maps for New Hampshire (SSSNNE Special Publication No. 1).
2. The soil types listed below have one or more limiting characteristics that make soil type "NA" or require on-site investigation, no matter what other characteristics in the soil may be present.

<u>Soil Type</u>	<u>Minimum Lot Size</u>
5***H	NA, poorly drained soil
6***H	NA, very poorly drained soil
*75*H	NA, fill does not meet the Standards for fill material (see Key to Soil Types)
76**H	On-site evaluation needed
NA means not allowed	
* means any slope number	

3. In areas not currently served by municipal sewer systems, it shall be the responsibility of the subdivider or his agent to provide adequate information to prove that the area of each lot is adequate to permit the installation of an individual sewage system.

D. On-Site Inspections. If deemed necessary, the Board may elect to visually inspect the property being subdivided. Under these circumstances, the developer may be asked to stake or flag proposed lot corners, wetland boundaries, where applicable and/or roadway centerlines on the ground for the purposes of facilitating such an inspection.

E. Dedication of lands.

1. Areas set aside for and where applicable improved suitably as parks and playgrounds to be dedicated or to be reserved for the common use of all property owners by covenant in the deed, whether or not required by the Board, shall be of reasonable size and character for neighborhood playgrounds or other recreational uses.
2. Where deemed essential by the Board, consistent with the Master Plan, and upon consideration of the particular type of development proposed, and especially in large scale neighborhood unit developments, the Board may require the dedication or reservation of recreational or open space of a character, extent, and location suitable to the needs created by such development.

F. Test Pits/Percolation Tests. In areas not served by public sewer systems, the applicant shall submit test pit and percolation test data sufficient to demonstrate that a suitable area exists on each platted lot for the construction of an on-site subsurface sewage disposal system meeting the requirements of the NHDES New Hampshire Department of Environmental Services.

G. Monumentation. Boundary monuments shall be installed at all turning points on platted lot lines and any other point the Board, or its agent deem necessary to control the lines of streets, lots, easements, or rights-of-way. 4" x 4" x 36" reinforced concrete or stone markers shall be installed adjacent to all streets and shall be installed so as to protrude not less than three (3") inches nor more than six (6) inches above finished grade. Iron pins may be used at all other points and must be at least thirty-six (36") inches long and protrude a nominal three (3") inches above finished grade.

## **Section 170-26 Streets**

A. General

1. All new subdivisions shall meet the standards recommended by the State of New Hampshire Department of Safety, Division of Emergency Services, Bureau of Emergency Communications addressing standards guidelines. No street name shall be used which will duplicate or be confused with any street name already in use. Further, the use of persons "first" names as street names shall normally be avoided.
2. Street names shall be subject to approval of the Chief of the Derry Fire Department and the Planning Board.

3. The arrangement, character, extent, width, grade and location of all streets shall be considered in their relationship to existing or planned streets, to topographic conditions, to public convenience and safety, and their appropriate relation to the proposed use of the land to be served.
4. Proposed streets shall conform, as far as practicable, to the Master Plan.
5. The arrangement of streets in a proposed subdivision shall in the discretion of the Planning Board provide for the continuation of existing streets in adjoining areas and for their proper projection when adjoining land is developed in the future.
6. All streets in a proposed subdivision shall be so designed that, in the opinion of the Planning Board, they will provide safe vehicular travel while discouraging movement of through traffic, unless this condition is deemed desirable at a given location by the Board.
7. Where a subdivision abuts or contains an existing collector or arterial street, the Board may require internal access streets, reverse frontage with screen planting contained in a non-access reservation along a property line, deep lots with rear service streets or other such treatment as may be deemed necessary for adequate protection for residential properties and to afford separation of through and local traffic.
8. Where a subdivision borders on or contains a railroad right-of-way, the Board may require a street approximately parallel to, and on each side of such right-of way, at a distance suitable for the appropriate use of the intervening land, as for park purposes in residential districts, or for commercial or industrial purposes in appropriate districts. Such distances shall also be determined with due regard for approach grades and future grade separations.
9. Sidewalks shall be required in a subdivision when the average lot size is less than 43,560 square feet. The sidewalk shall be 5 feet wide minimum with a 6 inch crushed gravel base and a 2 inch binder course overlaid with a 1 inch finish course of hot bituminous concrete pavement. All sidewalk construction shall conform to the requirements of the Americans with Disabilities Act. If a horizontal separation between curb and sidewalk is proposed, the area between the two shall be grassed.
10. Where necessary, in the judgment of the Planning Board, sidewalks and/or rights-of-way (R.O.W.) for pedestrian travel and access may be required in subdivisions when the average lot size is one acre or larger, between subdivisions, or between a subdivision and public property.
11. In all proposed subdivisions the applicant shall provide for all necessary street lighting, including poles and light fixtures. Lights will be located where directed by the Planning Board and be of a type, style and intensity acceptable to the Planning Board.

12. All new streets shall have signs and pavement markings installed in accordance with the Manual of Uniform Traffic Control Devices. It will be the responsibility of the applicant to provide for and install all signs as necessary, including street identification signs.
13. All proposed streets in which the sub-base is within four (4') feet of the estimated seasonal high water table shall have underdrains installed in the subgrade (see Typical Roadway Cross Section for New Construction – Figure 1). Test pits will be required along the proposed roadway at 200 foot intervals to verify water table elevation. Where refusal (bedrock) is encountered a 2-foot coarse sand sub-base shall be placed between bedrock and the road base materials [See Figure 1].
14. Vertical granite curbing shall be required on all new roadways, together with a closed drainage system except where it is impractical or impossible to comply with State of New Hampshire requirements concerning stormwater treatment and discharge, or in areas where the Derry Planning Board prefers an uncurbed typical section. Vertical granite curb shall have minimum dimensions of 6 inches in width by 18 inches in height. Granite curbing shall not be required along the internal edge of cul-de-sacs but the green area within the circle shall be graded two percent (+2%) from the edge of pavement to the center of the cul-de-sac. (Effective 5/18/05)
15. All roadway construction shall conform with the Typical Roadway Cross-Section for new construction [Figure 1] as well as Table B – Table of Geometric Standards attached to these regulations.
16. Driveway curb cuts will be installed prior to the placement of wearing course of hot bituminous asphalt pavement. No driveway locations shall be amended or relocated once the curbing is installed and wearing course is in place. All proposed driveway aprons shall be constructed to a point 40 feet inward from the edge of pavement on all streets at the time of street construction. (Effective 5/18/05)

**All Driveway Aprons Shall:**

- **Slope away from the edge of the road at no less than 3% for open drainage and slope toward the road at no more than 3% in closed drainage subdivisions for a minimum of 10 feet.**
- **Maximum grades allowed for next 30 feet are 5% and -5% respectively.**
- **Be no wider than 24 feet except that the Driveway may be flared at the entrance.**
- **Have a minimum site distance of 200 feet in both directions 10 feet from edge of traveled way.**
- **Be constructed with a minimum of 12 inch depth of NHDOT Crushed Gravel 304.3 Specification for entire length and width of the 40 foot driveway apron.**
- **Include minimum 2” thickness of bituminous asphalt base course pavement between edge of pavement and edge of right of way (typically 13 feet from edge of roadway pavement).**
- **Be completed along new roadways as part of the road drainage feature as a factor for Substantial Completion and Eligibility of Occupancy Permits.**

- **Be completed along existing roadways as part of the road drainage feature as a factor for completion of all off-site improvements and Eligibility of Occupancy Permits. (Effective 7.16.08)**
17. All roadway embankment slopes, including ledge cuts, shall not be steeper than 4-foot horizontal to 1-foot vertical and shall be graded, loamed (4-inches compacted), and seeded. The Planning Board in special circumstances such as may permit steeper embankment slopes when the typical 4:1 slope requirement would cause excessive earthwork or impact to wetlands. (Effective 5/18/05)
  18. Guardrails shall be provided at all locations where roadway fill embankment slopes are steeper than 4:1. No retaining walls shall be permitted within Public R.O.W.s. (Effective 5/18/05)

**B. Horizontal Alignment of Streets**

1. Street intersections shall have a minimum centerline offset of 200 feet.
2. Street intersections shall be designed to intersect at 90 degrees where conditions permit. No intersection shall be permitted where the angle of intersection is less than 80 degrees.
3. All streets and their intersections shall be designed and constructed with a tangent between successive or reverse curves. The minimum tangent length shall be as indicated in the Table of Geometric Standards attached herewith (Table B).
4. Whenever a street centerline changes direction, a horizontal curve shall be required between successive tangents. The minimum radius for horizontal curves is indicated in the Table of Geometric Standards attached herewith (Table B).
5. Single access cul-de-sac streets shall not contain more than 30 dwelling units, nor be longer than 2000 feet as measured from the centerline of the nearest through street to the centerline radius point of the cul-de-sac. The geometry of proposed cul-de-sacs shall conform with the Table of Geometric Standards attached herewith (Table B).
6. Right-of-way lines at intersections of streets and cul-de-sacs shall be rounded with a curve having a minimum radius of 25 feet. A greater radius may be required if requested by the Planning Board.

**C. Vertical alignment of streets**

1. Street grades shall conform to those indicated in the Table of Geometric Standards (Table B).
2. Vertical curves shall be required at all locations where the change in grade is one percent (1%) or greater. Minimum length of vertical curve shall be determined by the formula  $L=KA$ , where  $L$ =length of Vertical Curve in feet,  $A$  = the algebraic difference in grade in percent, and  $K$  is the length of vertical curve per change in  $A$ . Values for  $K$  are listed in the Table of Geometric Standards (Table B).

3. At proposed intersections, the cross slope of the intersected street shall be extended a minimum of 10-feet past the typical width of pavement before introducing Point of Vertical Curvature (PVC) of the profile of the intersection street. Further, from that PVC, the maximum grade for 75-feet shall not exceed two percent on arterial and collector roads; nor three percent on service roads.
4. Where, in opinion of the Board, and where it has been demonstrated to the satisfaction of the Board by the subdivider that adherence to the maximum allowable road grade specified in the Table of Geometric Standards (Table B) will cause excessive cuts and fills, a waiver from the above specified maximum grade may be granted provided:
  - a. The maximum allowable grade is eight percent (8%);
  - b. The maximum length of such grade, measured between vertical points of intersection (PVI) is five-hundred feet (500');
  - c. No other such slope greater than four percent (4%) occurs within five hundred feet (500') measured along the centerline of the road from PVI's; and
  - d. The applicant provides written justification to the Planning Board for the design of a street grade greater than six percent (6%). (Effective 5/18/05)

D. Stopping sight distance

1. All streets within a subdivision shall be designed to provide a stopping sight distance at all locations in accordance with the recommendations of the American Association of State Highway and Transportation Officials (AASHTO) as set forth in "A Policy of Geometric Design of Highways and Streets – 1990". An excerpt from Table III-1 of the foregoing document is set forth below for convenience:

<b>Design Speed (miles per hour)</b>	<b>Minimum Stopping Sight Distance (feet)</b>
20	125
25	150
30	200
35	225
40	275
45	325
50	400
55	450

2. The AASHTO recommendations are based on the height of the driver's eye at 3.5 feet above road the surface and the height of the object to be observed at 6 inches above the road surface. The 6 inch object shall be considered to be in the driveway

at a location 10 feet back from the edge of pavement on the street to be accessed; the driver's eye to be in a vehicle approaching the driveway.

3. Where a new street intersects a proposed or existing street, the new street shall be located such that the foregoing stopping sight distances can be achieved from the point located 10-feet back from the edge of pavement of the intersected street. (Effective 2/21/07)
4. Each lot within the subdivision shall be laid out such that a driveway for access to said lot can be located so that the foregoing stopping sight distances can be achieved from the proposed driveway intersection along the street.
5. To determine whether the foregoing stopping sight distance requirements have been met, the designs plans shall include plans and profiles of proposed and existing streets and driveways. The plans and profiles called for by this paragraph shall be drawn to a scale of 1-inch to 50-feet in the horizontal and 1-inch to 5-feet in the vertical.
6. The applicant shall provide certification from a licensed land surveyor or registered professional engineer that the above requirements have been met on the plans submitted to the Board for approval.
7. Sight distance easements shall be provided to the Town along horizontal curves and intersections in order to maintain sight distance requirements, where necessary.

#### **Section 170-24 Sewers**

- A. Sanitary sewers and manholes shall be located at the center of the traveled lanes the north and east sides of public right-of-way where possible.
- B. All sanitary Sewers shall conform to sections WS 1008.01, WS 1008.02 and WS 1008.03 of the New Hampshire Code of Administrative Rules, latest edition and to the current Town of Derry Construction Requirements for Sanitary Sewers.
- C. The applicant shall provide written copies of all state approvals for the proposed sanitary sewer system.
- D. Calculations shall be performed for all new sanitary sewers and shall include flow analysis showing the effect of the proposed sewer on the existing system outside of the area of the subdivision. All sanitary sewers shall be designed based on the New Hampshire Code of Administrative Rules-Standards of Design for Sewerage and Water Treatment Systems with the following exceptions:
  1. The minimum slope for 8-inch sanitary sewer shall be not less than 0.005 feet per foot;
  2. Sanitary sewer services shall be a minimum of 6-inch diameter and shall have a minimum slope of 0.01 foot per foot;
  3. Manholes shall be spaced no more than 300 feet apart; and

4. Sanitary sewer and manholes shall be constructed of materials as specified in the Town of Derry Construction Requirements for Sanitary Sewer, latest edition.
- E. If it is determined that a proposed sanitary sewer may be extended in the future, the future capacity shall be calculated and used to determine the design diameter and slope of sewer mains.
- F. Sanitary sewer service stubs shall be constructed to the limits of platted right of way at the time of road construction.

#### **Section 170-28 Water Mains**

- A. Water main shall be located on the south and west sides of public right-of-way where possible.
- B. Minimum depth of water mains shall be 5-feet to prevent damage from freezing.
- C. Prior to extending the Town of Derry water system, the applicant shall meet with the Public Works Department to determine the design requirements necessary for a particular project. The applicant shall provide calculations demonstrating that proposed and existing water supply systems meet the requirements of the latest edition of the Town of Derry Construction Requirements for Water Main and have been approved by the Public Works Department.
- D. Hydrants shall be located so that the arc of a 500-foot radius from the hydrant extends not less than 200-feet into each lot. Each hydrant must provide adequate flow of water as recommended by the Derry Public Works Department.
- E. Proposed community water supply system shall be designed and constructed to Town of Derry Standards, latest edition. Community systems shall be owned by the Town of Derry, unless otherwise approved by the Public Works Department and Planning Board.
- F. Water mains and appurtenances shall be constructed of materials as specified in the Town of Derry Construction Requirements for Water Main, latest edition.
- G. Water service stubs shall be constructed to the limits of platted public right of way at the time of road construction.

#### **Section 170-29 Storm Drains**

- A. Storm drainage systems shall be designed using the storm return frequency as follows:
  1. Single family residential 10 year frequency
  2. Multi-family residential, commercial and industrial 25 year frequency
  3. Flood protection works 50 year frequency
- B. The peak rate of discharge of storm water runoff from the development under post-development conditions shall not exceed that of the predevelopment conditions unless it can be demonstrated that no off site adverse impact will result or appropriate flowage easements have been secured.
- C. The maximum distance of overland flow along roadways shall not exceed 400 feet.

- D. Drainage calculations submitted shall where appropriate include flow analysis showing the effect of a subdivision on the existing drainage facilities outside of the area of the subdivision. Where the Board anticipates that additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility so that there will be a reasonable likelihood of damage to private property or an increase in the expenditure of public funds, the Board shall not approve the subdivision until adequate provision is made, at the subdivider's expense, for the accommodation of downstream drainage improvements.
- E. All calculations used for the design of the storm drainage system shall be by currently recognized best engineering methods and practices; and shall be stamped by a licensed professional engineer.
- F. Calculations shall be for both pre-development and post-development conditions and shall include the nature and times of concentration, runoff coefficients or curve number, maximum rate of runoff, total amount of runoff, storm sewer and drainage ditch sizing, culvert sizing for all roadway and driveway crossings, retention/detention facilities, and other information as may be required by the Board or Town Engineer.
- G. All storm sewers shall be designed to have a minimum flow velocity of 2-feet per second and a maximum flow velocity of 12 feet per second based on calculated design flow and corresponding to the applicable return frequency design storm.
- H. All open ditches and swales shall be designed to have a maximum flow velocity of 10 feet per second. All open ditches and swales shall be designed in accordance with Design of Stable Channels With Flexible Linings, Hydraulic Engineering Circular No. 15, published by the U.S. Department of Transportation, October 1975.
- I. Suitable methods and calculations shall be used to design erosion control methods for use with all storm drainage systems. Such methods shall include but not be limited to: head walls or end sections for all inlets and outlets, bedded rip rap for drainage ditches that exceed a flow velocity of 2.5 feet per second, slope mattresses and revegetation.
- J. Minimum pipe size shall be 12 inches in diameter for privately maintained storm drainage systems and 15 inches in diameter for publicly maintained storm drainage systems. The minimum depth of cover from the road or ground surface to the crown of the pipe shall be not less than 3 feet.
- K. Storm sewer and appurtenances shall be constructed of materials in accordance with the standards set by the Public Works Department for the Construction of Storm Drains, latest edition. All catch basin grates and frames shall be heavy duty gray cast iron meeting ASTM A48 Class 30 (American Foundry) with a 24" x 24" opening a two inch (2") square opening pattern on grate, unless otherwise approved by the Planning Board. Polyethylene liners shall be installed in all proposed catch basins. (Effective 5/18/05) All grates or hatches at outlet control devices shall be fabricated from stainless steel or hot dipped galvanized steel (ASTM A123/A123M). (Effective 6/18/08)
- L. No underground storm water collection basins or infiltration systems shall be permitted. (Effective 6/18/08)

## **Section 170-30 Fire Protection**

- A. Fire protection options.
1. Fire Hydrants – Any development occurring within 1000 linear feet, as measured along the course of a public or private street, access drive or right-of-way, of an existing public water main shall extend the public water system to provide fire hydrants to within 500 feet of any proposed lot within the development for fire protection purposes. The measurement shall be from the fire hydrant to the access drive of the building lot. All water mains and fire hydrants shall be installed in accordance with the requirements of the Public Works Department.
  2. In the event that the public water system owner deems the extension of the water main technically unfeasible, the developer will be required to install fire cisterns or the developer may have an option to install individual residential sprinkler systems in lieu of fire cisterns.
  3. Fire Cisterns- Any development occurring outside the public water system by a distance greater than 1000 feet may provide water for fire protection purposes through the use of fire cisterns. The cistern shall be located no further than 1,000 linear feet from the access drive to any building lot within the development. Fire cisterns shall meet the specification and be installed in accordance with the requirements of the Derry Fire Department. The developer will be required to present a statement to the Planning Department from the Fire Department which indicates compliance with this provision.
  4. Residential Sprinkler Systems – In residential developments, when the developer has chosen to install residential sprinkler systems in lieu of fire cisterns, those systems shall be installed in accordance with the most recent edition of Standards 13D or 13R of the National Fire Protection Association. The sprinkler system must be reviewed and approved by the Fire Department prior to installation, and tested by the Fire Department prior to issuance of the Certificate of Occupancy.

## **Section 170-31 Other Utilities**

- A. In all proposed subdivisions, electric, telephone, cable, and other utility distribution lines shall be installed underground per specifications of the utility companies involved.
- B. Appropriate easements, if any, required for proper utility construction and maintenance shall be platted and conveyed as part of subdivision design.
- C. Utility construction shall be completed in a manner which will not interfere with proper roadside drainage.
- D. Detailed plans for all underground transmission or utility lines shall be supplied to the Public Works Department prior to installation and “record” drawings, sealed by a Licensed Professional Engineer, or Licensed Land Surveyor, shall be supplied to the Public Works Department and utility companies following installation and prior to release of performance guarantees.

### **Section 170-32 Special Flood Hazard Areas**

- A. All subdivision proposals which contain lands designated as Special Flood Hazard Area by the Federal Emergency Management Agency (FEMA) in its "Flood Insurance Study for Rockingham County" together with the associated Flood Insurance Rate Maps (FIRM) dated May 17, 2005, shall meet the requirements of this section.
- B. The Planning Board shall review the proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- C. The Planning Board shall require that all subdivision proposals include within such proposals base flood elevation data, if applicable.
- D. Sufficient evidence (construction, drawings, grading and land treatment plans) shall be submitted so as to allow a determination that:
  - 1. All such proposals are consistent with the need to minimize flood hazards;
  - 2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage; and
  - 3. Adequate drainage is provided so as to reduce exposure to flood hazards.
- E. In order to obtain the approval of the Planning Board, the applicant must affirmatively demonstrate to the Board, by a preponderance of the credible evidence presented at a public meeting or meetings, that all the requirements of this section have been met and that the procedures set forth in these regulations have been followed.
- F. No development which requires approval by the Board will be permitted in the Conservation Corridor Overlay District (as defined in Chapter 165, Zoning), unless the applicant has applied for and received a special exception under the provisions of Article IX, Section 165-74 of Chapter 165, Zoning; and has demonstrated that there will be no impairment of the absorptive capacity of the wetlands within the Conservation Corridor Overlay District, as defined by Chapter 165, Zoning, that flood water elevations will not be increased, and that there will be no harm caused to wildlife.

### **Section 170-33 Offsite Improvements**

If the Board determines that the proposed development creates the need for off-site improvements, all or part of which are rationally related to or occasioned by the proposed development, or which will require an excessive expenditure of public funds in order to provide the same, the Planning Board may impose the requirement that the applicant install or pay for all or part of such off-site improvements.

- A. When imposing such requirement, the Board shall consider the degree to which the proposed development is benefited by such off-site improvements.
- B. Such deliberations shall include whether other properties would also benefit from the upgrading of such off-site improvements. In such cases the Board shall determine the amount to be paid by applicant, taking into consideration the following:
  - 1. The character of the area;

2. The extent that the general and/or other public or private property will be benefited by the off-site improvement; and
3. Any other factor that the Board deems appropriate to establish a rational connection to the needs created by the development to the amount to be paid by the applicant.

## **ARTICLE VI - PERFORMANCE GUARANTEES AND PROCEDURES**

### **Section 170-34 General Provisions**

Before final approval is recorded at the Registry of Deeds, the applicant must either:

- A. Complete all improvements specified on the plan; or
- B. File a performance guarantee in an amount sufficient to cover the cost of preparation of the streets, curbs, sidewalks, streetlights, street signs, traffic signals, municipal water and municipal sewer facilities, setting boundary monuments, parks and recreational areas, or other offsite or promised improvements where applicable.

### **Section 170-35 Performance Guarantee Requirements and Procedures**

A. Any performance guarantee shall be approved as to form and amount by the Derry Planning Board, and conditioned on the completion of such improvements within two years of the date of the performance guarantee unless released earlier by a vote of the Board upon request of the subdivider. Guidelines, procedures and requirements for establishing performance guarantees are more specifically outlined in the "Development Project Security Workbook" of the Town of Derry appended to these regulations.

B. The applicant shall construct and pay for all temporary improvements, such as erosion and sedimentation control measures and temporary infrastructure improvement, required by the Board, and shall maintain those improvements for the period of the performance guarantee or in the case of public roadways, the date that the Town accepts the dedication of the streets and releases all securities whichever date comes earlier. *(Effective 3/28/07)*

C. If improvements for which security is given are not completed within the period specified in the performance security, then the Board may vote to complete the improvements and withdraw the necessary funds from the balance of any such security with accordance in the term of security.

D. When subdivision improvements have been certified to be complete and acceptable to the Town by the Town Engineer or the Planning Board's Designee, the Board may vote to recommend that the Town Council accept such public roads, parks and other improvements. *(Effective 3/28/07)*

E. The approval of a subdivision plan by the Board shall not constitute or imply the acceptance by the town of any street, easement or park shown on the plan, nor shall any such street, easement or park shown on the plan be deemed to have been accepted unless and until the Town Council shall have voted to do so. Prior to acceptance of streets, easements or lands to be conveyed to the Town by any party, the applicant or his/her successor shall provide for executed Warranty or Easement Deeds, in a form acceptable to the Town, conveying such land or easements to the public.

### **Section 170-36 Inspection Requirements**

In order to confirm that various items and features, delineated on plans presented to the Planning Board for approval (or which are otherwise required in connection with the development), are, in fact, constructed in accordance with those plans and/or in accordance with applicable codes and standards, the Planning Board may, at the time of plan approval, require the applicant to establish an appropriate escrow, or other security in addition to the Performance Guarantee described in Section 170-35 herein, acceptable to the Planning Board, which will be used by the Town of Derry as security for retention of appropriate engineers or other consultants to confirm that construction is in conformance with the approved plans and/or applicable codes and standards. The applicant shall reimburse the town for the cost of such engineers or consultants, prior to release of said security. Specific details and procedures concerning construction-monitoring requirements are as contained in the "Subdivision Construction Monitoring" and "Offsite Development Construction Monitoring" workbooks appended to these regulations.

### **Section 170-37 As-Built Plan Requirements**

In order to provide a permanent record of the locations, dimensions and characteristics of various items and features, delineated on plans presented to the Planning Board for approval (or which are otherwise required in connection with the development), the Planning Board shall require the applicant to provide as built drawings, sealed by a licensed professional engineer, or Licensed Land Surveyor, prior to the final release of performance guarantees pertaining to such items. As-built plan requirements and content shall conform with applicable standards established by the Public Works Department. **In addition, a digital submission of as built plans shall be submitted to the Community Development Director, in the format set forth under Section 170-24. (Effective 6/18/08)**

### **Section 170-38 Release of Performance Guarantees**

A. Performance guarantees shall not be released until a third party Licensed Land Surveyor or Professional Engineer has certified that required boundary monuments have been set.

B. As phases or portions of the secured improvements or installations are completed and approved by the Planning Board, the Board may partially release said security to the extent reasonably calculated to reflect the value of such completed improvements or installations, provided, however, that the Planning Board shall establish a reasonable retainage sufficient to repair or complete any such improvement on account of damage or deterioration caused by or on account of the completion of the project.

C. The security posted by the applicant may, upon request of the applicant, be released to the extent of improvements completed, as certified by the Town's inspecting engineer.

D. Developers shall be required to maintain all required public improvements in the subdivision, including snow removal, until the street, or other improvements, is officially accepted by the Town.

## **ARTICLE VII - ADMINISTRATION AND ENFORCEMENT**

### **Section 170-39 General Requirements**

- A. All construction within new developments shall be performed in accordance with the plans, profiles, typical sections and details approved by the Board and the requirements contained therein.
- B. Minor changes or revisions to said plans, profiles, typical sections and details caused by unanticipated conditions encountered during construction shall be designed by the applicant's engineer and shall be subject to the written approval of the Town Engineer with concurrent notice to the Planning Director prior to such approval being given. Major changes or revisions to any plan previously approved by the Planning Board which involve material alterations in the work, or involve discretionary judgment powers generally reserved for the Planning Board under these regulations or applicable statutory provisions, shall be made only upon receipt of approval from the Derry Planning Board. Those contemplating a change or revision to approved project plans shall contact the Planning Director and Town Engineer regarding the proposed change. The Planning Director, in consultation with the Town Engineer, shall render an opinion as to whether a contemplated change is deemed to be a major or minor revision.
- C. Executed and recordable instruments of conveyance shall be delivered to the Town conveying land to be used for public purposes, easements and rights-of-ways over property to remain in private ownership, and rights of drainage across private property shall be submitted in a form satisfactory to the Town's attorney.
- D. No occupancy permits shall be granted for any structure located adjacent to a proposed right-of-way until:
  - 1. All utilities including sewer, water and drainage structures are complete for the entire length of the lot frontage upon which the structure is located;
  - 2. All roadway construction has progressed to at least the point of installation of the base course of bituminous concrete pavement; and
  - 3. All instruments of conveyance required under sub-section C herein are delivered to and recorded at the Rockingham County Registry of Deeds.

### **Section 170-40 Construction Specifications**

All items of work shall be constructed in conformance with all codes, ordinances, specifications and regulations adopted by the Town. Any item of work for which there are no specifications contained herein shall conform to "Specifications for Road and Bridge Construction" of the State of New Hampshire Department of Transportation, latest edition.

### **Section 170-41 Construction Monitoring and Inspection**

All construction within new developments shall follow the procedures as set forth in the Construction Monitoring Procedures and Checklist, published by the Derry Department of Public Works, latest edition.

#### **Section 170-42 Violations and Penalties**

Any violation of these regulations shall be subject to the penalties as provided for in RSA 676:17, as amended. Each day the violation continues shall constitute a new violation.

#### **Section 170-43 Active and Substantial Development and Building**

In approving any application, the Planning Board may specify the threshold level of work which shall constitute "active and substantial development and building" for the purpose of determining the minimum amount of work required in order to satisfy the provisions of RSA 674:39. Active and substantial development, in the absence of the specific finding of the Planning Board, shall mean construction of one or more subdivision roads on a subdivision plan, through binder course of hot bituminous pavement, sufficient to cause eligibility for certificates of occupancy for structures on those lots as to which RSA 674:39 exemption is or will be claimed under the provisions of Section 170-39D of these regulations.

#### **Section 170-44 Substantial Completion**

Substantial completion of project improvements, unless otherwise specified by the Planning Board in connection with a subdivision approval, shall include the improvement of all on-site and off-site improvements specified in the subdivision approval, except for those improvements which are specifically deferred by recorded vote of the Planning Board prior to the expiration of the four year period specified in RSA 674:39. To the extent that the Planning Board calls a bond or other security for such improvements and the funds are paid to the Town, substantial completion of the improvements in the subdivision shall be deemed to have occurred.

## **PART 3 – SITE PLAN REGULATIONS**

### **ARTICLE VIII - GENERAL PROVISIONS**

#### **Section 170-45 Title**

Part 3 of these Land Development Control Regulations shall be known as the “Site Plan Regulations of the Town of Derry, New Hampshire.”

#### **Section 170-46 Authority**

These regulations have been prepared in accordance with the authority vested in the Town of Derry Planning Board by vote of Town Meeting on March 8, 1960 and in accordance with RSA 674:43, as amended.

#### **Section 170-47 Purpose**

The purpose of the Part 3 is to:

- A. Uphold the purposes set forth in RSA 674:44, including to:
  1. Provide for the safe and attractive development or change or expansion of use of the site and guard against such conditions as would involve danger or injury to health, safety, or prosperity by reason of: inadequate drainage or conditions conducive to flooding of the property or that of another; inadequate protection for the quality of groundwater; undesirable and preventable elements of pollution such as noise, smoke, soot, particulates, or any other discharge into the environment which might prove harmful to persons, structures, or adjacent properties; and inadequate provision for fire safety, prevention, and control;
  2. Provide for open harmonious and aesthetically pleasing development of the municipality and its environs;
  3. Provide for open spaces and green spaces of adequate proportions;
  4. Require the proper arrangement and coordination of streets within the site in relation to other existing or planned streets or with features of the official map of the municipality;
  5. Require suitably located streets of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air, and access for firefighting apparatus and equipment to buildings, and be coordinated so as to compose a convenient system;
  6. Require, in proper cases, that plats showing new streets or narrowing or widening of such streets be submitted to the Planning Board for approval;

7. Require that the land indicated on plats submitted to the Planning Board shall be of such character that it can be used for building purposes without danger to health; and
  8. Include such provisions as will tend to create conditions favorable for health, safety, convenience, and prosperity.
- B. Assist the Planning Board in carrying out the objectives of Chapter 165 Zoning Ordinance, including the provisions of Article XIV, Growth Management, of Chapter 165.
  - C. Assist the Planning Board in carrying out the objectives of the Town's Master Plan.
  - D. Provide for the timely installation of off-site and on-site improvements necessitated by the development and for the payment of such improvement costs.

#### **Section 170-48 Applicability**

- A. These regulations shall apply to all site plans, for non-residential and/or multi-family development, located within the boundaries of the Town of Derry.
- B. Neither non-residential nor multi-family residential land development activities shall commence until:
  1. The proponent has obtained final approval of the site plan; and
  2. The approved site plan has been recorded at the Rockingham County Registry of Deeds.
- C. Notwithstanding these regulations, any person may, without Planning Board approval, record a plan of the type described in RSA 676:18, II, and II-a, provided however, that no other or additional information is included thereon except as authorized by said statute and certified thereon in accordance with RSA 676:18 III.

#### **Section 170-49 Appeals**

- A. Any person aggrieved by any decision of the Planning Board upon these regulations may appeal to the Superior Court as provided in RSA 677:15.
- B. Any person aggrieved by a decision of the Planning Board concerning site plan approval or disapproval may appeal to the Zoning Board of Adjustment if the decision was based upon the terms of Chapter 165, Zoning, as provided in RSA 676:5, III.

## **Section 170-50 Waivers**

**Pursuant to RSA 674:44, III (e), the Planning Board may include provisions for waiver of any portion of the regulations.**

- A. Where the Planning Board finds that unnecessary hardship may result from strict compliance with these regulations with respect to a particular tract of land, the Board may modify or waive these regulations so that substantial justice may be done and the public interest secured, provided that:
1. The waiver shall not have the effect of nullifying the intent and purpose of these regulations;
  2. The Planning Board requires such conditions as will, in its judgment, secure the objectives of the regulations which are waived;
  3. The waiver is requested in writing;
  4. The waiver is based on evidence presented to the Board by the applicant;
  5. The Planning Board formally votes on such waiver; and
  6. The waiver is noted on the final approved plan.
- B. The Planning Board may set higher requirements with regard to any standards in these regulations if, in the opinion of the Board, it is necessary to protect the health, safety or welfare of the community.
- C. The requirements of Section 170-68 of these regulations pertaining to special flood hazard areas shall not be waived.

## **ARTICLE IX - APPLICATION AND APPROVAL PROCEDURES**

### **Section 170-51 Site Plan Determination**

- A. In order to facilitate existing land and business owners who may from time to time seek to amend the use of, or minimally alter or expand existing commercial/industrial or multi-family structures, the Planning Board may, after submittal of a duly executed application for a site plan determination; and conducting a duly noticed public hearing, grant approval for the same without the need for a complete and formal site plan review application.
- B. Prior to submission of an application for a site plan determination, potential applicants are encouraged to discuss the pending proposal with the Planning Director, who may generally advise such potential applicant as to whether or not said proposal meets the Planning Board's requirements for approval under this section.
- C. Applicants seeking a site plan determination by the Planning Board shall submit a duly executed site plan determination application on forms provided by the Planning Department, together with any exhibits or fees required as part of the same.
- D. At a duly noticed public hearing, the Planning Board shall consider the applicants request and make a determination as to whether or not the applicant's proposal is eligible for approval under this Section. After such deliberations, the Planning Board may grant approval to the applicant enabling the applicant to proceed with his/her proposal after issuance of any required local building permits and/or state or local utility permits; grant approval to the application subject to specific conditions; or deny the application.
- E. In cases where an application for a site plan determination is denied, the applicant may submit an application for site plan review under the terms and conditions of these regulations.

### **Section 170-52 Conceptual Consultation Phase**

- A. Prior to formal application for Site Plan approval, an applicant, or his authorized agent, may request an informal consultation under RSA 676:4II(a) with the Board to discuss the proposal and preliminary concepts associated with the proposed development, and to provide the Board an opportunity to provide its input in order to assure conformance with current regulations.
- B. This consultation shall neither bind the applicant nor the Board.
- C. This consultation shall be limited to conceptual discussions related to the desirability of the proposed development and its conformance to the Master Plan and these regulations.
- D. This consultation shall occur only at a regular or special meeting of the Board.
- E. This consultation shall not require formal public notification, unless in the opinion of the Planning Director and/or the Planning Board, the anticipated topics of discussion contain specific details of a future site development proposal generally reserved for the design review phase or final application phase, in which case the consultation must be held under the provisions of Section 170-53, Design review phase.

- F. Plan review under this section shall not constitute a completed application, nor formal acceptance by the Board under RSA 676:4, I (c); nor shall any plans submitted for conceptual consultation be deemed to be a completed application under that section.

#### **Section 170-53 Design Review Phase**

- A. Design review phase is not required, but is strongly recommended, particularly in cases of developments of significant size or complexity.
- B. Design review phase shall be used for design review under RSA 676:4, II (b). In the design review, the Board may engage in non-binding discussion with the applicant which may extend beyond conceptual and general terms.
- C. Design review phase shall not constitute a completed application nor formal acceptance under these regulations or under RSA 676:4, I (c); nor shall any plan submitted for design review be deemed to be a completed application under this section.
- D. Design review phase review may occur only after notice and publication as prescribed under RSA 676:4, I (d).
- E. Eight (8) copies of the design review phase submittal as described in Section 170-60 of these regulations shall be filed with the Board at the time of design review phase application. The Board will then study the preliminary site layout and proposed streets in connection with the topography of the area, the existing requirements of the community, and the best use of the land to be developed and that of the adjoining areas.
- F. The Board may hold discussions with the applicant or his agents and may hear and confer with other parties whose interests may be affected by the proposed layout. After such discussions, the Board shall communicate to the developer the specific changes, if any, which it may require as prerequisite to the subsequent approval of the final site plan.

#### **Section 170-54 Final Application Phase**

- A. At the initial public hearing of a final site plan application, the Board shall determine whether or not the submitted application is complete according to the regulations of the Board as set out in Section 170-61 of these regulations and pursuant to RSA 676:4, I (c). Such determination shall be made by vote of the Board within 30 days of delivery of the application. If the Board determines that the application is not complete, the Board shall notify the applicant in writing of the determination in accordance with RSA 676:3, and shall state in that notice the information, procedure or other requirement necessary for the application to be complete.
- B. If the Board determines that a final site plan application is complete according to the regulations of the Board, the Board shall vote to accept the application for jurisdiction. The Board shall then begin formal consideration of the application.
- C. Before the final application is approved or disapproved, the Board shall hold a public hearing on the plan.

- D. The Board shall vote to approve, approve subject to conditions, or disapprove the application within 65 days of the vote that the application is complete unless:
  - 1. upon application by the Planning Board, the Town Council granted an extension not to exceed in additional 90 days; or
  - 2. the applicant waives this requirement in writing and consents to a mutually agreeable extension of time.
- E. If the Planning Board fails to act within the time specified by these regulations, RSA 676:4, or any previously agreed extension, then the applicant may apply to the Town Council for relief as described in RSA 676:4, I (c).
- F. The Town Council is hereby specified as the municipal board which shall issue on behalf of the Board, a certificate of failure on the part of the Planning Board to take action on approval or disapproval of a plat submitted to it, as provided in RSA 676:4, I (C) (1).

### **Section 170-55 Application for Special Permits under Growth Management**

- A. Unless exempted under the provisions of Section 165-115A.2 of Chapter 165, Zoning, every multi-family site plan applicant must complete an application for a specific permit under the Growth Management Ordinance (GMO) to be submitted to the Planning Director at the same time as, and as a part of the final application. No final application shall be deemed to be complete under these regulations unless and until the application for special permit has been submitted and a report thereon, as required by Section 165-115B.1 of Chapter 165, Zoning, has been submitted to the Planning Board.
- B. The application for site plan approval, in addition to all other requirements set out in these regulations, must include the following;
  - 1. A completed Special Permit application, including a calculation of development points based on the present Capital Improvements Plan;
  - 2. A map showing the location of the proposed multi-family site along with the location of abutting land holdings of the applicant or by entities owned or controlled by the applicant; and
  - 3. Other information required by the Planning Director in order to appropriately evaluate the application.
- C. When the Planning Director receives a special permit application under the Growth Management Ordinance (GMO), the Planning Director shall review the application.
  - 1. The Planning Director may request reports from appropriate town or school officials or agencies.
  - 2. Within 20 days of the submission of a special permit application, the Planning Director shall notify the applicant and the Planning Board of his findings on the application, including the how many development points the proposal is eligible to claim.

3. The Planning Board shall review the special permit application in conjunction with its site plan review.
4. The Planning Board's decision on the approval or disapproval of the site plan shall set out the following: the total number of special permits for which the development is eligible; the number and identity of dwelling units which are allocated to the basic development right; and the number and identity of dwelling units which constitute the additional development right, and the years in which these additional development rights are exercisable based on the then current long term Capital Improvement Plan as adopted by the Planning Board pursuant to Section 165-117 of Chapter 165, Zoning.

### **Section 170-56 Fees and Costs**

The following fees shall be paid at the time of application.

- A. Commercial/Industrial (new construction): \$0.15 per square foot not to exceed \$10,000.00.
- B. Commercial/Industrial additions/new floor space: \$0.10 per square foot not to exceed \$5,000.00
- C. Multi-family residential: \$100.00 per unit
- D. Site Plan Determination: \$0.10 per square foot, not to exceed \$5,000.00
- E. Parking Lot Expansion: \$0.07 per square foot, not to exceed \$10,000.00.
- F. Notice fee (: The current cost of Certified/Return Receipt mail postage per abutter or other person receiving notice, plus an administrative fee of \$3.00 per notice.
- G. Legal notice: \$50.00
- H. Recording Fee: Per sheet/document fee for plans and documents, according to the most recent fees established by the Rockingham County Registry of Deeds, plus a 5% administrative fee. In addition, there is a \$25.00 LCHIP surcharge for each applicable recording.
- I. External review fees will be provided by the Planning Director and are due at the time of application. The applicant is responsible for all fees incurred by the town for external review of the application

### **Section 170-57 Public Hearings**

- A. Whenever a public hearing is required by these regulations or by applicable statutes, the following procedures shall be used.
- B. The applicant shall be present at the public hearing. If the applicant is not the owner of the parcel under review, the applicant shall provide a written authorization, containing the notarized signature of the owner(s), authorizing the applicant to act as an agent, for and on behalf of the owner(s), at such public hearings, and authorizing the agent to make all decisions and commitments with respect to the Board's review of the proposal which the owner(s) could make if personally present.
- C. Notice of the application shall be sent by certified mail sent at least 10 days prior to the public hearing to the following persons:
  1. Abutters as defined in Section 170-2 of these regulations;

2. All property owners within 200 feet of the subject property as delineated on the Town's GIS system;
  3. The applicant and current property owner;
  4. Holders of land conservation, preservation or agricultural preservation restriction; and
  5. Every engineer, architect, land surveyor, soil scientist, or wetlands scientist whose professional seal appears on the plat submitted to the Board.
- D. Notice to the general public shall be given by publishing in a newspaper of general circulation at least 10 days prior to the public hearing and posting in two public places within the Town.
- E. All notices shall include a general description of the proposal, the applicant's name, the location of the proposal, the date, time and place of the public hearing, and the proposed actions to be taken by the Board.
- F. Additional notice is not required for additional hearings on a proposal if the date, time and place of the additional hearing was made known at the prior hearing and duly recorded in the official minutes of the same.
- G. At the Public hearing, any applicant, abutter, holder of conservation, preservation or agricultural preservation restriction, or any person with a direct interest in the matter may testify in person or in writing. Other persons may testify as permitted by the Board.

## ARTICLE X -000 APPLICATION SUBMITTAL REQUIREMENTS

### Section 170-58 General Requirements

- A. Prior to formal application for any site plan approval, the applicant is encouraged to meet with the Planning Director to review the proposal.
- B. Any application where abutter notification is required shall be filed at the Planning Board office not less than 15 days before any regularly scheduled meeting.
- C. The Planning Board office shall provide the applicant with a receipt stating the date, time of the application and all fees received, if so requested by the applicant or his/her agent at the time of application delivery.
- D. An application which has been submitted to the Planning Department office for submission to the Board, shall not be supplemented, revised or modified after public notice of hearing has been given, except upon vote of the Planning Board at the hearing.
- E. An application may be withdrawn prior to the hearing, however, all application fees shall be forfeited and the applicant shall remain liable for all consultants' fees incurred prior to withdrawal of the application.
- F. All applications will be scheduled for action by the Board in the order in which they are received.
- G. By filing an application with the Board, the applicant, including all the applicant's agents, consultants and representatives, consents to the review of the application by independent consultants retained by the Board at the applicants expense for the purpose of:
  - 1. Confirming that the application conforms with applicable state and local requirements; and
  - 2. Recommending to the Board any additional studies or investigations and/or information from land surveyors, engineers, architects, attorneys, soil scientists, wetland scientists, or others with expertise in a particular field, and which could facilitate the Board's actions on the application.
- H. All plans submitted to the Board for review shall be prepared by a professional engineer or land surveyor, as applicable, who is licensed to practice in the State of New Hampshire.
- I. Failure to comply with these application procedures or failure to comply with all applicable state and federal laws, ordinances and regulations shall be grounds for disapproval of the application.

### **Section 170-59 Requirements for Conceptual Consultation**

- A. For conceptual consultation, an applicant should provide information sufficient for the Planning Board to give meaningful comments.
- B. Applicant should provide information on how a proposed multi-family or residential development will comply with the terms of the Growth Management Ordinance, and a general schedule for development under the GMO of all land holdings of the applicant or by entities owned or controlled by the applicant.

### **Section 170-60 Design Review Phase Submittals**

- A. Presentation requirements:
  - 1. Scale of all drawings shall be 50 feet [50'] to the inch or less for all design review phase submittals, and shall be limited to a sheet size of 22 inches by 34 inches [22"x34"] with a one-inch margin on three sides for binding.
  - 2. Lettering size shall be not less than 18 (0.12) inch.
  - 3. If more than one sheet is necessary to show the entire site at the required scale, and index plan at a scale adequate to show the entire site on one plan sheet shall be provided and shall be drafted so as to create a graphical index of sheets.
  - 4. All match lines shall be clearly shown and labeled.
- B. The design review application shall be accompanied by 8 copies of the proposed site plan which shall include the following information:
  - 1. Proposed development name, location, north arrow, scale, and date of preparation.
  - 2. Boundary information prepared from existing deeds and field information. Distances may be shown to the nearest foot and bearings shall be shown to the nearest one-minute. Area of subject parcel(s) in acres and square feet and location and elevation of any flood hazard areas situated on the parcel.
  - 3. Names, addresses and phone numbers of the: owner(s) of record; Applicant; and Engineer and/or Land Surveyor.
  - 4. Locus map at a scale of 2,000 feet to the inch or less.
  - 5. Abutting lot lines, streets, alleys, easements, parks, public open spaces, and zoning districts. All shall be clearly labeled and Tax Map numbers indicated where applicable. Name and addresses of all abutters shall be included and shall also be submitted on a separate sheet of paper.
  - 6. United States Department of Agriculture Soil Conservation Service soil survey mapping of subject parcel where site is to be served by municipal water and sewer; high-intensity soil survey mapping where served by on-site facilities.

7. Location and dimensions of all existing and proposed easements, building setbacks and other restrictions.
8. Existing topography showing surface contours at an interval of two feet or less, watercourses, ponds, standing water, wetlands, rock outcrops and ledges, tree lines, utility poles, buildings, pavement and gravel areas, and other physical features as may be found. Topography shall extend a minimum of 50 feet beyond the parcel boundary.
9. Existing and proposed water mains, sanitary sewers, storm sewers and culverts including size, material and direction of flow.
10. Location and dimensions of existing and proposed buildings and accessory structures. A note shall be provided on the plan which indicates the total gross floor area of each existing and proposed building with a breakdown of the total gross floor area in each building assigned to a particular use. Pedestrian access and service/loading provisions for each building will be identified as applicable.
11. Location and layout of all existing and proposed parking areas, aisles, driveways and public or private streets and access drives. Parking calculations based on proposed site use shall be provided. (Effective 3/28/07)
12. Preliminary exterior lighting and landscape plan.
13. Preliminary drainage report and calculations.
14. Drainage plan showing the following: the direction of runoff, both existing and proposed, through the use of arrows; the existing and proposed methods of handling storm water runoff; and the location, elevation and size of all catch basins, storm sewers, culverts, drainage ditches, swales and retention/detention basins.
15. Preliminary design plans of any proposed off-site improvements.

C. The applicant will submit a completed design review application; a completed design review application checklist; and all required fees.

### **Section 170-61 Final Application Phase Submittals**

A. A complete final application for the purposes of these regulations and for the purposes of RSA 676:4, I (c) shall be accompanied by nineteen (19) copies of the proposed plans [three (3) full size sets and fifteen (15) 11 x 17 sets], which shall include the following information:

1. Proposed development name or identifying title, name and address of the owner of record and subdivider, and the name of the consultant(s), date, scale, north point, lot numbers, location map at a scale of 2,000 feet to the inch or less, revision block, surveyor's certifications and plan notes, and Planning Board approval block [located at lower right corner of recordable site plan sheet(s)].
2. The area of the parcel, street frontage and zoning requirements for minimum lot size and frontage.

3. Zoning classification(s) of the parcel and the location of any abutting zoning districts or municipal boundaries.
4. Sufficient data to determine readily the location, bearing and length of all street lines, lot lines, boundary lines and to be able to reproduce such lines upon the ground. All dimensions shall be shown to the hundredths of a foot and bearings to the nearest one second. The error of closure shall not exceed 1 in 10,000. The final plat shall show the boundaries of the property, the location and description of all monumentation, a benchmark referencing USGS datum and shall be prepared and shown on a plan(s) and shall be sealed by a licensed land surveyor, unless taken from a reference plan meeting the above requirements. If boundary data taken directly from a reference plan, the registry recording number and title of said plan shall be cited.
5. Abutting lot lines, streets, alleys, easements, parks, public open spaces and similar relevant facts. Parcel ID number, owners' names and addresses for all abutting parcels matching similar data provided on the abutters list submitted with the application.
6. Horizontal and vertical features shall be adjusted to the New Hampshire State Plane Coordinate System (Second Order – Class II, NAD 83/92-NGVD88), shown at two (2) boundary corners.
7. Location and elevation of any designated flood hazard areas.
8. Street lines, building setback lines, pedestrian ways, lot lines, reservations, easements and areas to be dedicated to public use and areas, the title to which are reserved by the developer.
9. All stipulations and restrictions intended to remain in perpetuity shall be shown on the Final Plat.
10. A Planning Board approval block with a place for signature and date of approval by the Board shall be placed on each recordable sheet in the lower right hand corner of the sheet. A note shall appear on the project plans indicating:
  - i. The total number of sheets in the plan set;
  - ii. Which sheets will be recorded upon approval; and
  - iii. That the full set of project plans is on file at the Derry Planning Department.
11. Two-foot contour interval topographical survey data of the subject site and immediate surroundings. This existing conditions survey shall show all existing site improvements on subject site and immediate vicinity. Topographical survey data provided shall be referenced to USGS datum.
12. High intensity soil survey mapping (showing soil types and locations) shall be prepared, shown on a plan(s), and shall be sealed by a certified soil scientist, where site is to be served by on site water supply and sewage disposal facilities. United States Department of Agriculture Soil Conservation Service mapping shall be provided where site is to be served by municipal utilities.

13. Wetlands mapping shall be prepared, shown on a plan(s), and shall be sealed by a certified wetland scientist.
14. Location and exterior dimensions and height of existing and proposed buildings and accessory structures.
15. A note on the plan indicating total gross floor area of each existing or proposed building to remain, as well as a breakdown of the total gross floor area for each building by use classification.
16. Access points and service loading areas for all buildings.
17. Location and layout of all proposed/existing driveways, parking areas, fire lanes and walks.
18. Detailed parking calculations.
19. Solid waste storage areas, snow storage areas, traffic control signs and pavement markings.
20. Exterior lighting provisions and details of all proposed lighting fixtures.
21. Landscape design plans and details.
22. A detailed erosion and sedimentation control plan.
23. Commercial signage details and locations.
24. Construction details of all site improvements.
25. A detailed site grading plan.
26. Detailed off-site improvement plans, where applicable.
27. Drainage calculations shall be prepared and sealed by a licensed professional engineer; and drainage improvements shall be shown on a plan(s).
28. Sanitary sewer design calculations shall be prepared, when applicable and sealed by a licensed professional engineer; and sanitary sewer improvements shall be shown on the plan(s).
29. Water distribution design calculations shall be prepared and sealed by a licensed professional engineer; and water distribution system improvements shall be shown on the plan(s).
30. Traffic impact statements (TIS), when required, shall be prepared and sealed by a licensed professional engineer. The scope of a TIS shall be as directed by the Planning Director in conjunction with the Town Engineer.
31. Drawings required with the final plat shall be prepared, certified and sealed by a licensed professional engineer and shall include:

- a. Profiles of all proposed streets, water mains, sewers and open waterways with a horizontal scale of 1 inch to 50 feet, and vertical scale of 1 inch to 5 feet. All elevations shall refer to an established benchmark.
  - b. Drainage, sanitary sewer and water distribution plans subject to the following requirements:
    - i. Outlines of streets, lots, easements, etc. as shown on the final plan with distances to the nearest foot;
    - ii. Location of all manholes, catch basins, hydrants, structures downstream drainage facilities and utility poles or underground lines and pipes;
    - iii. Sizes and type or class of all pipe, including storm sewer, sanitary sewer, water and gas mains and service stubs;
    - iv. Location, type and detailed design of special structures or bridges; and
    - v. Proposed tax map and lot number for each lot.
32. Design plans and construction detailed, as applicable for providing fire protection systems complying with the requirements of the Growth Management Ordinance.
33. Copies of all required state and federal project permits necessary for the subject site development proposal.
34. A block shall be placed on the cover sheet of each site plan for signatures by: the Public Works Director; Code Enforcement Officer; Derry Fire Department; Conservation Commission Chair; and Police Department, or their designees. Prior to submission of application, applicant shall review the proposed site plan with each party noted above and obtain said signatures.
35. A minimum of two boundary corners on each site plan shall be tied to the Town of Derry Geodetic Control Network (Second Order – Class II, NAD 8392 – NGVD 29).
- B. Drawing format – All information shown on drawings shall be left to right reading, with the lettering shown in a plane parallel with the bottom edge of the drawing. If dimensions or other data have to be shown in a plane other than parallel with the bottom of the drawing, the lettering placement in all planes shall be such that the information is readable as the drawing is rotated clockwise. The type of lettering shown on the drawings shall be vertical uppercase Gothic. The size of lettering shall be a minimum of 18 (.12) inch high, which shall be used for the majority of information shown on the drawing. Space between adjacent 1/8-inch high characters shall be such as to not exceed a maximum of 10 characters to the inch.
- C All plans shall be submitted to the Planning Director in the electronic formats noted below.
- 1. Adobe Acrobat pdf.
  - 2. Drawing file: Two formats shall be submitted: a .dxf (Drawing Exchange File) format and a .dwg (AutoCad drawing format).
  - 3. Electronic Filing Requirements: The above shall be accomplished with the following guidelines:

- a. Horizontal and vertical features shall be adjusted to the New Hampshire State Plane Coordinate System (Second Order – Class II, NAD 83/92-NGVD88).
- b. All digital Files shall be submitted on a CD/DVD. No other form of submittal will be accepted.
- c. The following information will be labeled on the disk: file name(s); property owner name; parcel identification number (tax map and lot number); and name of submitting consultant. The file name format shall be as follows:  
MapLot\_ProjectName\_Owner(lastname)\_Consultant.xxx [example:  
30060\_MunicipalCenter\_TownOfDerry\_ABCSurvey.dwg].
- d. The submitted drawing format shall be rotated to grid (NAD 83/92);
- e. Horizontal control points shall have an adjusted accuracy of 1:10,000 (Third Order, Class I);
- f. The referenced entities and their layer properties shall correspond to the following:
  - i. The digital file shall have a layer named "NHSPCS". NAD83 referenced points and the easting, northing and vertical descriptions of the required points shall be annotated on this layer. The NHSPCS layer shall be magenta in color.
  - ii. All lines representing property lines shall consist of continuous line work snapped to endpoints. Stonewall representations, unless created using a line type will not be accepted.

## ARTICLE XI - DESIGN AND CONSTRUCTION STANDARDS

### Section 170-62 Access and Circulation Requirements

#### A. General requirements for site access.

1. Each and every property, subject to Planning Board review under these regulations, shall be afforded safe and efficient vehicular and pedestrian access to and from public streets access drives, private streets, driveways, and where appropriate, sidewalks. The design and construction of all access drives, private streets, driveways and walks providing access to non-residential and/or multi-family residential sites shall be adequate, in the opinion of the Planning Board, to safely accommodate anticipated traffic volumes generated by the proposed development. In the case of multi-family residences in the Independent Adult Community Overlay District, each building shall have an approved driveway access to an internal access drive. Common driveways may be permitted for up to three (3) building units. (Effective 3/28/07)
2. Applicants for non-residential and multi-family sites accessed from public streets under the jurisdiction of the New Hampshire Department of Transportation (NHDOT) shall be required to obtain a valid NHDOT driveway permit prior to final approval for such development. In cases where a proposed non-residential or multi-family site is to be accessed from a public street under the jurisdiction of the Town of Derry, the applicant shall be required to obtain a local driveway permit from the Derry Public Works Department prior to issuance of a Building Permit for such development.
3. All private streets, and access drives to non-residential and multi-family sites shall be afforded sight distance sufficient to fulfill the requirements of Section 170-26D of this regulation. (Effective 3/28/07)
4. All access drives and private streets shall be constructed in accordance with Section 170-26.A.; 1, 2, 3, 13, 15, 16, 17, 18, B; and C of this Regulation and shall be constructed in accordance with the requirements of "A Manual On Uniform Traffic Control Devices," latest edition, as published by the U.S. Department of Transportation, Federal Highway Administration. (Effective 3/28/07)
5. Sidewalks shall be constructed or maintained along the frontage of non-residential or multi-family sites at locations where the Town of Derry or NH-DOT presently maintains sidewalks, where construction of such walks is planned in the future, and at other locations where directed by the Planning Board. All sidewalk construction within public right-of-ways under the jurisdiction of the Town of Derry shall be in accordance with the requirements of Section 170-26.A9 of this chapter. Sidewalk construction within public right-of-ways under the jurisdiction of the NH-DOT shall be in accordance with the requirements of the NH-DOT.

#### B General Requirements for Site Circulation

1. All non-residential and multi-family structures and associated parking areas shall be afforded access via private roads or internal access internal drives having a minimum width of 24-feet. (Effective 3/28/07)
  2. In general all driveways shall be constructed and paved in accordance with the same specifications included in Section 170-63 of these regulations applicable to parking lot construction. (Effective 3/28/07)
  3. All non-residential and multi-family sites shall be afforded fire lanes and emergency vehicle access sufficient to fulfill the requirements of the Derry Fire Department.
  4. All retail establishments, restaurants, banks and service businesses which offer drive-through facilities shall be equipped with a designated drive through lane for each individual window or piece of equipment intended to serve drive through patrons. Each lane shall be at least 11-feet in pavement width, be striped and signed properly for the intended use and shall be capable of accommodating a minimum of six passenger sized vehicles without blockage of site circulation drives and parking spaces outside of the drive through area.
  5. Pedestrian access to all non-residential or multi-family structures shall be provided via paved walkways constructed in a manner consistent with the requirements of the Americans with Disabilities Act (ADA). In cases where non-residential or multi-family developments front on public streets with sidewalks, on site walks, also constructed in accordance with the requirements of the ADA, shall be constructed so as to provide safe and convenient pedestrian access to the development.
- C. Private roads or access drives may be accepted within an approved site plan by the Planning Board but shall comply with Section 170-62.A4 of this chapter. The following note shall appear on the site plan:

*“The ways shown on this plan are intended by the applicant and the Town of Derry to be platted, constructed and maintained as private ways. The recording of this plan shall not be construed as an offer of dedication of those ways as public highways under New Hampshire Law of Dedication and Acceptance.”* (Effective 3/28/07)

### **Section 170-63 Parking Requirements**

- A. General parking requirements.
1. No non-residential or multi-family residential site or structure shall be erected, enlarged, or subject to a change of use unless such site conforms with off-street parking requirements contained within this section.
  2. All on site parking spaces, service or delivery aisles, interior drives, aisles and vehicular access ways shall be setback a minimum of 10 feet from all side and rear property lines and a minimum of 15 feet from all front property lines in all zoning districts of the Town of Derry except within the Central Business District. Within the Central Business District setback dimensions shall be five feet from all property lines.

3. All parking facilities shall be designed and constructed in compliance with all applicable provisions of the Americans with Disabilities Act (ADA).
4. Required off street parking facilities shall be provided on the same lot as the principal use or uses they are intended to serve except within the Central Business District and the Traditional Business Overlay District. Within the CBD and TBOD parking may be met with a combination of both public and private on and off street parking.
5. All required parking spaces, aisles and drives shall be paved and constructed in accordance with the requirements of this Section.
6. A curbed, raised and landscaped island, a minimum of 15 feet in width, shall be provided where parking spaces, service or delivery aisles, interior access drives, aisles and vehicular access ways abut a public street in all zoning districts of the Town of Derry except within the Central Business District and Traditional Business Overlay District.
7. A curbed, raised and landscaped island, a minimum of 10 feet in width shall be provided between groupings of twenty or more parking spaces in all zoning districts within the Town of Derry.
8. A minimum of 5% of the interior area of any proposed parking area and aisles shall be provided as interior landscaped green space in all parking lots containing more than 20-parking spaces.
9. All parking areas serving non-residential uses shall be illuminated to a minimum of a 1/2 foot candle during hours of operation of said non-residential use.

**B. Parking Density Requirements.**

1. All non-residential and multi-family residential sites shall provide on-site parking facilities meeting the requirements of this section. Non-residential sites within the CBD and TBOD are allowed to utilize off site parking as stipulated in LDCR Section 170-63.B.4.
2. Where the computation of required parking density results in a fractional number of spaces, the required number of spaces shall be rounded upwards to the nearest whole number (I.e. a computed density of 39.2 or 39.8 spaces results in a requirement for 40 spaces).
3. In cases where a single site is comprised of varying uses, parking requirements for each use shall be calculated in accordance with the requirements of this Section and the total number of required parking spaces shall be the sum of requirements for each individual use.
4. Parking density requirements by use:
  - a. Multi-family dwellings, including independent adult communities — (Effective 2/21/07, amended 5/6/2015)  
1.5 spaces per bedroom with a minimum of two spaces per dwelling unit.

- b. Elderly housing: 1.5 spaces per dwelling unit
- c. Hospitals: 3 spaces per bed
- d. Convalescent or nursing home: 1 space per two beds
- e. Congregate Care Facilities, Assisted Living Facilities —  
There shall be 0.5 parking spaces per unit plus 1 parking space per employee. (Effective 2/21/07)
- f. Hotel, motel or inn: 1.25 spaces per room, plus one space per 50 square feet of function, meeting, or conference space
- g. Retail store, shopping center, supermarket, grocery store or bank:  
1 space for each 300 square feet of gross floor area
- h. Service establishments: 1 space for each 250 square feet of gross floor area
- i. Churches, theaters, and other places of assembly: 1 space for each 3 seats
- j. Restaurants, eat-in: 1 space for each three seats plus one space for each employee of the largest shift
- k. Cocktail lounges in restaurants, Bars & Nightclubs: 1 space for each 2 seats plus one space for each employee of the largest shift.
- l. Restaurant, fast food or take out: 1 space per 60 square feet of gross floor area, plus one space per employee of the largest shift.
- m. Bowling alley: 4 spaces for each alley
- n. Day care facility: 2 spaces for each employee plus appropriate off-street area for drop-off and pickup of children.
- o. Funeral home: 12 spaces for each chapel
- p. Gasoline station: 1 space per fueling position plus one space per employee of the largest shift
- q. Community center: 1 space per 150 square feet of gross floor area
- r. Membership clubs: 1 space per 150 square feet of gross floor area
- s. Office: 1 space per 300 feet of gross floor area
- t. Professional offices: 1 space per 250 square feet of gross floor area
- u. Medical offices and Health Service Facilities: 1 space per 200 square feet of gross floor area.
- v. Warehouses: 1 space per 1,200 square feet of gross floor area

- w. Wholesaling: 1 space per 500 square feet of gross floor area
- x. Manufacturing: 1 space per 500 square feet of gross floor area
- y. Uses not listed: Subject to determination by Planning Board

C. Dimensional requirements.

1. Standard parking spaces shall be a minimum of nine feet wide by twenty feet (9' x 20') long.
2. Handicapped parking spaces shall conform to the dimensional requirements of the ADA.
3. Two-way parking aisles shall be a minimum of 24-feet wide. One-way parking aisles shall be a minimum of 18-feet wide.

D. Construction requirements.

1. All parking spaces shall be striped with white or yellow traffic paint (four inch minimum line width).
2. All parking surfaces, aisles and drives shall be paved with a minimum thickness of three inches of hot bituminous pavement (two inch binder course and one inch wearing course).
3. All parking pavement shall be placed on a compacted gravel surface consisting of a minimum of 4 inches of crushed gravel placed over a minimum thickness of eight inches of bank run gravel.

## **Section 170-64 Landscape and Buffering Requirements**

A. General Requirements

1. All plant materials required under this Section shall be standard nursery stock, installed in accordance with accepted horticultural standards and be regularly maintained after installation. All plant materials specified on any site plan approved by the Planning Board shall be annually inspected by the owner or owner's agent. Any required plant materials found to be dead or diseased shall be replaced in kind. Failure to complete this requirement may result in a violation of site plan approval.
2. Ground covers, such as mulch, sod and other suitable materials shall be applied to areas which are not intended to be regularly maintained as lawn. Areas intended to be maintained as lawn shall be covered with a minimum thickness of four inches of friable topsoil and be seeded with grass seed. In general, establishment of turf shall be limited to those areas that may be regularly maintained as lawn.
3. Except in the Central Business District or Traditional Business Overlay District, a minimum of 1/3 of the net buildable area utilized for any non-residential or multi-family development shall be reserved as green space. Areas reserved as green

space may be vegetated with grass, landscape plantings, ground covers or native vegetation.

## B Landscape standards

1. A street tree strip, 15-feet in width, running parallel to the frontage of any non-residential or multi-family residential property shall be provided in all zoning districts except the Central Business District and the Traditional Business Overlay District. Within any street tree strip, a minimum of one indigenous shade tree (such as oak, maple, elm, ash, linden, etc.) with a minimum caliper of 2.5 inches and branching height of not less than 8 feet at the time of planting shall be provided for each 50 feet of street frontage. Street trees shall be planted not closer than 25 feet to one another.
2. A minimum of one deciduous or ornamental tree, with a minimum caliper diameter of 2.5 inches, per 30 feet of building perimeter shall be planted within the developed portion of any site. Trees shall be located so as to maximize the aesthetic quality of the site.
3. A minimum of one deciduous or evergreen shrub, with a minimum height and diameter of 18 inches, per two required parking spaces shall be planted within the developed portion of any site. Shrubs shall be located so as to maximize the aesthetic quality of the site.
4. At least 25% of trees and shrubs required under this section shall be planted within curbed, raised landscaped islands situated within parking areas or other paved areas of any site.
5. In order to promote the preservation of mature specimen trees as part of the design and construction of new non-residential and multi-family residential sites, healthy deciduous trees having a diameter of at least 8 inches at breast height may be preserved and used to fulfill the minimum tree planting requirements of subsection 165-64B.2 of this section.

## C. Residential buffering requirements

1. General Requirements. Unless superseded by more stringent requirements of the Chapter 165, Zoning, all non-residential and multi-family residential sites, which abut a residential district boundary shall provide for a residential buffer conforming with the requirements of this section. In all districts, with the exception of the CBD and the TBOD, all non-residential or multi-family sites which abut a parcel of land containing an existing residential structure situated in any zoning district of the town where such residential structure is currently a permitted use, shall provide for a residential buffer conforming with the requirements of this section. In the event that the Chapter 165, Zoning, provides for buffering requirements more stringent than those required under this section, the requirements of the Chapter 165, shall prevail.
2. Residential buffer dimensions.

- i. A continuous residential buffer, of a width and composition conforming with the requirements of this section, shall be provided along and parallel to applicable zoning district boundaries and/or applicable property boundaries separating any parcel used or proposed to be used for any residential or multi-family use except where specifically permitted by the Planning Board.
    - ii. Structures, pavement, utility construction, signage and similar hardscape improvements shall not be permitted to encroach on any residential buffer unless specifically permitted by the Planning Board.
    - iii. Unless superseded by more stringent requirements of the Chapter 165, Zoning, the minimum required width for all residential buffers shall be equal to the side yard width specified in the Chapter 165, Zoning, for the zoning district within which the subject non-residential or multi-family residential use subject to these buffer requirements is situated. The buffer between the Central Business District and a residential district shall be 20 feet.
    - iv. In order to provide maximum opportunity for those seeking to promote non-residential development within the Town of Derry, while maintaining appropriate buffers for the benefit and protection of existing residents, applicants shall be permitted to fulfill the minimum residential buffering requirements of this section through placement of required buffers on the residential side of zoning district boundaries or common lot lines provided that appropriate landscape easements or ownerships are secured and maintained for this purpose.
3. Design requirements for residential buffers. In general, the design intent for residential buffers shall be to diminish the effects of the more intensive use of non-residential and multi-family sites on abutting residential properties. In order to achieve these goals, applicants of proposed non-residential and multi-family residential sites may select one or more of the following options for development of affective buffering. Final design of the residential buffer shall be at the discretion of the Planning Board.
  - a. Retention of Existing Vegetation and Forest Canopy. In cases where existing forest exists along a boundary subject to the residential buffering requirements of this section, existing, healthy forest canopy and associated under story vegetation may be used to fulfill the requirements of this section. In cases where existing vegetation is insufficient to provide for an effective visual screen, the Planning Board may require supplemental landscape plantings for the purposes enhancing the natural buffering capabilities of the native vegetation.
  - b. Planted Buffer. An applicant may create a treed buffer through the planting of a minimum of two staggered rows of coniferous trees spaced not further than 12-feet on center and not less than eight feet in height at the time of planting. Conversely, coniferous trees at least five feet in height at the time of planting may be placed in a required residential buffer provided they are planted on an earthen berm at least three feet in height.
  - c. Use of Fencing. In cases where required residential buffer widths are 20 feet or less, an applicant may elect to erect a continuous length of solid fencing of a

type and style acceptable to the Planning Board in lieu of Items 3A or 3B, Planted Buffer, above. Fencing used to fulfill this requirement shall not be less than six feet in height, nor impede proper sight distances at intersections of driveways and streets. In cases where applicants elect to utilize this option, a minimum of one deciduous or evergreen shrub, with a minimum height and diameter of eighteen inches, shall be planted along the face of said fencing at a spacing not to exceed an average of one shrub per 10-feet of fence.

C. Screening of unsightly site features

1. Screening requirements, general. Refuse storage areas, stockpiled materials and other unsightly materials and objects situated on any non-residential or multi-family residential site subject to review and approval under these regulations shall be located so as to be out of view from abutting properties and public streets where possible. In cases where such positioning is not possible, those items shall be effectively screened. A minimum screening shall be achieved by use of landscape plantings, fencing or enclosures of a height at least as tall as the item or items to be screened.
2. Screening requirements for loading and receiving areas. Loading docks and receiving areas shall be situated so as to be out of view from abutting properties and public streets where possible. Where such provisions are not possible, the applicant shall propose a method of screening and buffering acceptable to the Planning Board.

**Section 170-65 Stormwater Management Requirements**

- A. Storm drainage systems shall be designed using the storm return frequency as follows:
  1. Multi-family residential, commercial and industrial: 25-year frequency
  2. Flood protection facilities: 50-year frequency
- B. The peak rate of discharge of storm water runoff from the development under post development conditions shall not exceed that of the pre-development conditions unless it can be demonstrated that no off site adverse impact will result or appropriate flowage easements have been secured.
- C. Drainage calculations submitted shall where appropriate include flow analysis showing the effect of site development on the existing drainage facilities outside of the site boundaries. Where the Board anticipates that additional runoff incident to the development will overload an existing downstream drainage facility so that there will be damage to private property or an increase in the expenditure of public funds, the Board shall not approve the site plan until adequate provision is made, at the developer's expense, for the accommodation of downstream drainage improvements.
- D. All calculations used for the design of the storm drainage system shall be by currently recognized best engineering methods and practices; and shall be stamped by a Licensed Professional Engineer.

- E. Calculations shall be for both pre-development and post-development conditions and shall include times of concentration, runoff coefficients or curve number, maximum rate of runoff, total amount of runoff, storm sewer and drainage ditch sizing, culvert sizing, retention/detention facility sizing, and other information as may be required by the Board or Town Engineer.
- F. All storm sewers shall be designed to have a minimum flow velocity of 2 feet per second and a maximum flow velocity of 12 feet per second based on calculated design flow and corresponding to the applicable return frequency design storm.
- G. All open ditches and swales shall be designed to have a maximum flow velocity of 10 feet per second. All open ditches and swales shall be designed in accordance with Design of Stable Channels with Flexible Linings, Hydraulic Engineering Circular No. 15, published by the U.S. Department of Transportation, October 1975.
- H. Suitable methods and calculations shall be used to design erosion control methods for use with all storm drainage systems. Such methods shall include but not be limited to: head walls or end sections for all inlets and outlets, bedded rip rap for drainage ditches that exceed a flow velocity of 2.5 feet per second, slope mattresses and revegetation.
- I. Minimum pipe size shall be 12 inches in diameter for privately maintained storm drainage systems and 15 inches in diameter for publicly maintained storm drainage systems. The minimum depth of cover from the road or ground surface to the crown of the pipe shall be not less than three feet.
- J. Storm sewer and appurtenances shall be constructed of materials in accordance with the standards set by the Public Works Department for the Construction of Storm Drains, latest edition. All catch basin grates and frames shall be heavy duty gray cast iron meeting ASTM A48 Class 30 (American Foundry) with a 24" x 24" opening a two inch (2") square opening pattern on grate, unless otherwise approved by the Planning Board. Polyethylene liners shall be installed in all proposed catch basins. All grates or hatches at outlet control devices shall be fabricated from stainless steel or hot dipped galvanized steel (ASTM A123/A123M). **(Effective 6/18/08)**
- K. Underground Detention Basins: No arches shall be permitted. Pipe materials shall be dual wall HDPE or RCP with H20 loading capacity. Bedding for pipe systems shall be a minimum of twelve (12) inches of  $\frac{3}{4}$ " washed stone below invert to spring line of pipe. The trench width extents shall be two (2) feet greater than the nominal pipe size or a minimum of three (3) feet, whichever is greater. Filter fabric shall be placed securely over all stone and sand placed to one (1) foot over top of pipe compacted in six (6) inch lifts. All underground detention basins shall start from a minimum four (4) foot diameter precast concrete drain manhole or catch basin and terminate at a minimum four (4) foot diameter precast concrete drain manhole or catch basin that is designed to control discharge according to the stormwater management plan. All materials and fasteners related to construction of flow control devices shall be constructed of stainless steel. The minimum depth of cover from the pavement or ground surface to the crown of the pipe shall be not less than three (3) feet. **(Effective 6/18/08)**

- L. Infiltration Systems: Test pits must be completed and logged on the plans showing the estimated seasonal high ground water level and soil classifications as determined by Certified Soil Scientist in New Hampshire. The bottom of proposed infiltration Systems must be a minimum of two (2) feet above the seasonal high ground water level and or two (2) feet above ledge. Infiltration Systems shall only be permitted in areas of permeable soils with percolation rates of two (2) minutes per inch or better. No arches shall be permitted. Pipe materials shall be dual wall HDPE with H2O loading capacity. Bedding for pipe systems shall be a minimum of twelve (12) inches of  $\frac{3}{4}$ " washed stone below invert to spring line of pipe. The trench width extents shall be two (2) feet greater than the nominal pipe size or a minimum of three (3) feet, whichever is greater. All infiltration systems shall start from a minimum four (4) foot diameter precast concrete drain manhole or catch basin. In the event of failure, all infiltration systems shall be designed with an outfall. The minimum depth of cover from the pavement or ground surface to the crown of the pipe shall be not less than three (3) feet. (Effective 6/18/08)
- M. Underground Detention Basins and Infiltration Systems shall be designed to optimize access for maintenance purposes. A maintenance plan shall be included with the plan that details inspection and cleaning activities and be incorporated into the deed of the property. (Effective 6/18/08)

## Section 170-66 Utility Construction Requirements

### A. Sanitary sewer construction

1. Where municipal sewer is available, all proposed non-residential or multi-family residential sites shall be expected to connect to the same. In areas where municipal sewer is not available, an on-site subsurface sewage disposal system may be designed and constructed as long as said design and construction fully complies with all applicable requirements of the New Hampshire Code of Administrative Rules; and the applicant has secured appropriate permits for the same from the New Hampshire Department of Environmental Services.
2. Where a connection to municipal sewer is proposed, such construction shall be subject to the following requirements:
  - a. All Sanitary sewers shall conform to Section WS 1008.01, WS 1008.02 and WS 1008.03 of the New Hampshire Code of Administrative Rules, latest edition and to the current Town of Derry Construction requirements for sanitary sewers.
  - b. The applicant shall provide written copies of all state approvals for the proposed sanitary sewer system.
  - c. Calculations shall be performed for all new sanitary sewers and shall include flow analysis showing the effect of the proposed sewer on the existing system outside the area of the development. All sanitary sewers shall be designed based on the New Hampshire Code of Administrative Rules –

Standards of Design for Sewerage and Water Treatment Systems with the following exceptions:

- i. The minimum slope for 8-inch sewer shall be not less than 0.005 foot per foot;
  - ii. Sanitary sewer services shall be a minimum of 6-inch diameter and shall have a minimum slope of 0.01 foot per foot;
  - iii. Manholes shall be spaced no more than 300 feet apart; and
  - iv. Sanitary sewer and manholes shall be constructed of materials as specified in the Town of Derry Construction Requirements for Sanitary Sewer, latest edition.
- d. If it is determined that a proposed sanitary sewer may be extended in the future, the future capacity shall be calculated and used to determine the design diameter and slope of sewer mains.

**B. Water supply**

1. Where municipal water supply is available, all proposed non-residential or multi-family residential sites shall be expected to connect to the same. In areas where municipal water is not available, on site wells may be used to develop an appropriate water supply provided that said construction fully complies with all applicable requirements of the New Hampshire Code of Administrative Rules; and the applicant has received all required permits from the New Hampshire Department of Environmental Services.
2. Where a connection to municipal water is proposed, such construction shall be subject to the following requirements:
  - a. Minimum soil cover over water mains shall be 5 feet to prevent damage from freezing.
  - b. Prior to extending the Town of Derry Water System, the applicant shall meet with the Public Works Department to determine the design requirements necessary for a particular project. The applicant shall provide calculations demonstrating that proposed and existing water supply systems meet the requirements of the latest edition of the Town of Derry Construction Requirements for Water Main and have been approved by the Public Works Department.
  - c. Hydrants shall be located where required by the Derry Department. Each proposed hydrant shall be capable of delivering adequate flow as verified by the Derry Public Works Department.

C. Other utilities. All proposed on-site utilities (electric, telephone, cable T.V., etc.) shall be installed underground in accordance with the specifications of the individual utility companies involved and in accordance with all applicable local codes, unless otherwise permitted by the Planning Board.

**Section 170-67 General Site Design Requirements**

A. Exterior lighting provisions.

1. All non-residential and multi-family residential site design plans presented to the Planning Board for approval shall include a lighting plan which provides for a method and level of lighting appropriate for the proposed use or uses as determined by the Planning Board. All such lighting plans shall, as a minimum, identify the location, number, height, type and intensity of all exterior lighting fixtures to be installed.
2. Unless otherwise approved by the Planning Board all pole mounted lighting fixtures shall be fed electricity by the use of underground electrical lines installed in accordance with applicable electrical code.
3. Proposed exterior lighting fixtures shall provide for a level of illumination appropriate for the proposed use or uses. Illumination patterns proposed shall be such that all sites subject to these regulations will enjoy an adequate level of lighting to insure user safety and security. However, care shall be taken to avoid lighting patterns and intensities which "over light" a site, creating nuisance and glare at abutting properties, public streets and the neighborhood in general. All lighting plans shall be subject to review and approval by the Planning Board. No changes or modifications in approved lighting plans may be proposed without the specific approval of the Board.

B. Solid waste storage provisions

1. All solid waste storage areas shall be situated and where necessary, screened in order to conform with the requirements of Section 170-64D.1 of these regulations and shall be located a minimum of 25 feet from any boundary line of a site.
2. In recognition of the fact that varying non-residential uses often produce waste, which must be temporarily stored on site until the time of disposal, of varying type and quantity, provisions for adequate storage shall be reviewed by the Planning Board on a case by case basis. In general, the Planning Board shall:
  - i. Require applicants to disclose anticipated volumes and types of wastes to be produced by their proposed uses;
  - ii. Find that the applicants' proposal for storage and disposal of waste conforms with any and all applicable local, state and federal requirements;
  - iii. Find that the applicants proposal for storage and disposal of waste has incorporated reasonable safeguards insuring that such wastes will not become an undue threat to the environment nor create a public nuisance; and
  - iv. Where applicable, conform with Chapter 128, Article I, Recycling, of the Town Code.

C. Snow storage provisions.

1. All site plans presented to the Planning Board for approval shall identify an area or areas of sufficient size and composition to allow for safe and convenient storage of snow volumes anticipated to be provided by winter site maintenance, or include a note indicating that snow is to be removed from the site.

2. Snow storage areas shall not be specified at locations where: accumulated volumes of snow will produce a visual nuisance or impede proper lines of sight; inevitable snow melt will create a nuisance on-site or to abutters; inevitable snow melt will result in the flow of water onto a public street. Snow shall not be stored in areas of jurisdictional wetland nor in parking spaces, aisles, fire lanes, access drives nor other areas of a site where accumulated snow volumes would prevent proper use of a site in terms of these regulations or in the judgment of the Planning Board.
- D. Commercial signage provisions. Each site plan presented to the Planning Board for approval shall identify all proposed commercial signage and successfully demonstrate that the same fully complies with the requirements of the Chapter 165, Zoning.
  - E. Erosion and sedimentation control provisions. Each site plan presented to the Planning Board for approval shall include an erosion and sedimentation control plan which identifies a series of effective temporary and permanent best management practices for prevention and/or minimization of soil erosion during and after site construction. All erosion and sedimentation control plans shall conform to the National Pollutant Discharge Elimination System (NPDES) Program, Phases I and II as required by the Environmental Protection Agency (EPA). Prior to any construction activity, the developer shall submit a Storm Water Pollution Protection Plan (SWPPP) completed by a Registered Professional Engineer to the Public Works Department and made available on the site for review by the EPA. Once the SWPPP is complete, a Notice of Intent (NOI) must be filed with the EPA by both the owner and the contractor of the project and be approved following a seven (7) day review period before construction can begin. (Effective 5/17/05)
  - F. Prohibition and mitigation of offensive uses. Applicants seeking non-residential or multi-family residential site plan approval under these regulations shall disclose any proposed use of that site which has the potential to be deemed an “offensive use”, as defined in Article III – Section 165-15 of Chapter 165, Zoning. No site plan shall be permitted by the Planning Board until the applicant has demonstrated to the satisfaction of the Planning Board that the proposed use or uses of that site will not be deemed “offensive”. In cases where a proposed use or uses of a site have the potential to cause an “offensive use”, the Planning Board may require an applicant to install appropriate mitigation safeguards and/or implement Best Management Practices to prevent the proposed use or uses from being deemed “offensive” and hence be prohibited under Chapter 165, Zoning.

## **Section 170-68 Special Flood Hazard Areas**

- A. All development proposals which contain lands designated as Special Flood Hazard Area by the Federal Emergency Management Agency (FEMA) in its "Flood Insurance Study for Rockingham County" together with the associated Flood Insurance Rate Maps (FIRM) dated May 17, 2005, shall meet the requirements of this Section.
- B. The Planning Board shall review the proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- C. The Planning Board shall require that the development proposals include within such proposals base flood elevation data, if applicable.
- D. Sufficient evidence (construction, drawings, grading and land treatment plans) shall be submitted so as to allow a determination that:
  - 1. All such proposals are consistent with the need to minimize flood hazards;
  - 2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage; and
  - 3. Adequate drainage is provided so as to reduce exposure to flood hazards.
- E. In order to obtain the approval of the Planning Board, the applicant must affirmatively demonstrate to the Board, by a preponderance of the credible evidence presented at a public meeting or meetings, that all the requirements of this section have been met and that the procedures set forth in these regulations have been followed.
- F. No development which requires approval by the Board will be permitted in the Conservation Corridor Overlay District (as defined in Chapter 165, Zoning) unless applicant has applied for and received a special exception under the provisions of Article IX, Section 165-74 of Chapter 165, Zoning, ; and has demonstrated that there will be no impairment of the absorptive, capacity of the wetlands within the Conservation Corridor Overlay District as defined by Chapter 165, Zoning, that flood water elevations will not be increased, and that there will be no harm caused to wildlife.

## **ARTICLE XII - PERFORMANCE GUARANTEES AND PROCEDURES**

### **Section 170-69 General Provisions**

Before final approval is recorded at the Registry of Deeds, the applicant must file a performance guarantee, in an amount and form acceptable to the town, to serve as a surety that all proposed improvements within public or private streets or access drives; that may be a part of municipal stormwater and/or utility systems; and proper erosion and sedimentation control measures are completed in accordance with the approved plans. (Effective 3/28/07)

### **Section 170-70 Performance Guarantee Requirements and Procedures**

- A. Any performance guarantee shall be approved as to form and amount by the Town of Derry, and conditioned on the completion of such improvements within two years of the date of the performance guarantee unless released earlier by a vote of the Board upon request of the developer. Guidelines, procedures and requirements for establishing performance guarantees are more specifically outlined in the "Development Project Escrow Workbook" of the Town of Derry appended to these regulations.
- B. The applicant shall construct and pay for all temporary improvements, such as erosion and sedimentation control measures and temporary infrastructure improvements, required by the Board, and shall maintain those improvements for the period of the performance guarantee or the date that the Town releases all securities whichever date comes earlier.
- C. If improvements for which security is given are not completed within the period specified in the performance security, nor in proper conformance with the approved plans, the Board may vote to complete the improvements and withdraw the necessary funds from the balance of any such security in accordance with the term of security.

### **Section 170-71 Inspection Requirements**

In order to confirm that various items and features delineated on plans presented to the Planning Board for approval (or which are otherwise required in connection with the development), are, in fact, constructed in accordance with those plans and/or in accordance with applicable codes and standards, the Planning Board may, at the time of plan approval, require the applicant to establish an appropriate escrow, or other security, in addition to the Performance Guarantee Designated in Section 170-70 herein, acceptable to the Planning Board, which will be used by the Town of Derry as security for retention of appropriate engineers or other consultants to confirm that construction is in conformance with the approved plans and/or applicable codes and standards. The applicant shall reimburse the town for the cost of such engineers or consultants, prior to release of said security. Specific details and procedures concerning construction-monitoring requirements are as contained in the "Site Development Construction Monitoring" and "Offsite Development Construction Monitoring" workbooks appended to these regulations.

### **Section 170-72 As-Built Plan Requirements**

In order to provide a permanent record of the locations, dimensions and characteristics of various items and features, delineated on plans presented to the Planning Board for approval (or which are otherwise required in connection with the development), the Planning Board shall

require the applicant to provide “as built” drawings, sealed by a Licensed Professional Engineer, or Licensed Land Surveyor, prior to the final release of performance guarantee: pertaining to such items. As-Built Plan Requirements and content shall conform with applicable standards established by the Public Works Department. . In addition, a digital submission of as built plans shall be submitted to the Community Development Director, in the format set forth under Section 170-61.C. **(Effective 6/18/08)**

### **Section 170-73 Release of Performance Guarantees**

- A. Performance guarantees shall not be released until a Licensed Land Surveyor has certified that the boundary monuments have been set.
- B. As phases or portions of the secured improvements or installations are completed and approved by the Planning Board, the Board may partially release said security to the extent reasonably calculated to reflect the value of such completed improvements or installations, provided, however, that the Planning Board shall establish a reasonable retainage sufficient to repair or complete any such improvement on account of damage or determination caused by or on account of the completion of the project.
- C. The security posted by the applicant may, upon request of the applicant, be released to the extent of improvements completed, as certified by the Town’s inspecting engineer.
- D. Prior to any partial or final release of performance guarantee, all inspection fees, utility access/connection fees, police detail fees, or any other applicable municipal fees must be paid in full. **(Effective 5/18/05)**

## **ARTICLE XIII - ADMINISTRATION AND ENFORCEMENT**

### **Section 170-74 General requirements**

- A. All construction within new developments shall be performed in accordance with the plans, profiles, typical sections and details approved by the Board and the requirements contained therein.
- B. Minor changes or revisions to said plans, profiles, typical sections and details caused by unanticipated conditions encountered during construction shall be designed by the applicant's engineer and shall be subject to the written approval of the Town Engineer with concurrent notice to the Planning Director prior to such approval being given. Major changes or revisions to any plan previously approved by the Planning Board which involve material alterations in the work, or involve discretionary judgment powers generally reserved for the Planning Board under these regulations or applicable statutory provisions, shall be made only upon receipt of approval from the Derry Planning Board. Those contemplating a change or revision to approved project plans shall contact the Planning Director and Town Engineer regarding the proposed change. The Planning Director, in consultation with the Town Engineer, shall render an opinion as to whether a contemplated change is deemed to be a major or minor revision.
- C. Executed and recordable instruments of conveyance shall be delivered to the Town conveying land to be used for public purposes, easements and rights-of-ways over property to remain in private ownership, and rights of drainage across private property shall be submitted in a form satisfactory to the Town's attorney.
- D. No occupancy permits shall be granted for any structure until all work shown on an approved site plan is complete to the satisfaction of the Town Engineer and Planning Director. However, in certain cases, for good cause and reason, a temporary certificate of occupancy may be granted for a site provided the owner provides a performance guarantee to the town, in an amount and form acceptable to the town, to serve as a surety that remaining improvements not yet completed or begun will be satisfactorily completed within a predetermined time period. Nothing herein should be deemed to bind the building inspector, who shall have the final determination as to whether a certificate of occupancy shall be issued.

### **Section 170-75 Construction Specifications**

All items of work shall be constructed in conformance with all codes, ordinances, specifications and regulations adopted by the Town. Any item of work for which there are no specifications contained herein shall conform to "Specifications for Road and Bridge Construction" of the State of New Hampshire Department of Transportation, latest edition.

### **Section 170-76 Construction Monitoring and Inspection**

All construction within new developments shall follow the procedures as set forth in the Site Development Construction Monitoring procedures and checklist, published by the Derry Department of Public Works, latest edition.

### **Section 170-77 Violations and Penalties**

Penalties-Any violation of these regulations shall be subject to the penalties as provided for in RSA 676:17, as amended. Each day the violation continues shall constitute a new violation.

### **Section 170-78 Active and Substantial Development and Building**

In approving any application, the Planning Board may specify the threshold level of work which shall constitute "active and substantial development and building" for the purpose of determining the minimum amount of work required in order to satisfy the provisions of RSA 674:39. Active and substantial development, in the absence of the specific finding of the Planning Board, shall mean a level of construction sufficient to cause eligibility for certificates of occupancy for structures on those lots as to which RSA 674:39 exemption is or will be claimed under the provisions of Section 170-74D of these regulations.

### **Section 170-79 Substantial Completion**

Substantial completion of project improvements, unless otherwise specified by the Planning Board in connection with a site plan approval, shall include the improvement of all on-site and off-site improvements specified on the approved site plan, except for those improvements which are specifically deferred by recorded vote of the Planning Board prior to the expiration of the four year period specified in RSA 674:39. To the extent that the Planning Board calls a bond or other security for such improvements and the funds are paid to the Town, substantial completion of the improvements on the site plan shall be deemed to have occurred.

## **ARTICLE XIV – ARCHITECTURAL DESIGN REVIEW REGULATIONS (Effective 7/20/05)**

### **Section 170-80 Findings**

A. The Town of Derry Planning Board finds that:

1. Our Town contains a historic downtown area, multiple commercial and industrial districts, attractive residential neighborhoods, beautiful rural landscape replete with unique natural and cultural resources, an excellent architectural tradition, a colorful history, and much visual appeal.
2. Preserving and enhancing these features is integral to maintaining the character and identity of our community.
3. Building designs which are indifferent to the traditions of our Town and region, aggressively seek the attention of passing motorists, do not consider the quality of the pedestrian environment, or are erected at the lowest possible cost without due concern for aesthetics, harm the character of our community, depress property values, and impair our quality of life.
4. While subjectivity and judgment is invariably part of reviewing architectural designs there are universal principles of good design.
5. Well-crafted design standards can promote building design that is functional, economical, attractive, and harmonious. Quality development and sustainable economic development are not mutually exclusive; rather, they are interdependent.

### **Section 170-81 Adoption**

This article is adopted pursuant to the Town of Derry Master Plan and New Hampshire Revised Statutes Annotated sections 674:16 (Grant of Power), 674:21 (Innovative Land Use Controls) and 674:44 (Site Plan Review Regulations).

### **Section 170-82 Purpose**

A. The purpose of the Architectural Design Regulations is to:

1. Provide for high quality architecture that respects universal design principles, enhances the appearance of Derry, reinforces pedestrian character where appropriate, and is sensitive to neighboring buildings, its own site, the broader setting, and natural and cultural resources.
2. Protect and enhance the positive visual qualities of Derry's downtown, residential neighborhoods, commercial corridors, industrial parks, and scenic and rural landscapes.
3. Encourage design which is compatible with the commonly recognized traditional character of Derry and New England.
4. Enhance property values and foster civic pride.
5. Minimize potential aesthetic conflicts between residential and nonresidential uses and between single family and multifamily uses.

- B. Adherence to these regulations should not be burdensome and they are not intended to stifle creativity or variety. On the contrary, the regulations will likely encourage more thoughtful approaches to building design. There is much flexibility embodied in the regulations and many ways of meeting the objectives. It is hoped that they will be useful for design professionals and applicants seeking to produce quality designs respectful of place and context.

### **Section 170-83 Applicability**

- A. Architectural design review is required as part of Site Plan Review for all nonresidential structures and for all multifamily residential structures, as authorized in Chapter 165 of the Town of Derry Zoning Ordinances. This includes all new construction, building additions, and alterations to buildings if those alterations would affect the exterior appearance of the building. All applicable development must conform to these Regulations as reasonably interpreted and applied by the Planning Board.
- B. Architectural design review is not conducted for routine repair or maintenance of structures, any work on the interior of a building, any existing structures for which no exterior alterations are proposed, and modifications solely for the purpose of providing safe means of egress or access in order to meet requirements of the various building codes or safety codes, as may be adopted by the State of New Hampshire and the Town of Derry, from time to time.

### **Section 170-84 Various Sections Of The Town**

- A. Various sections of the Town differ from one another in character and in appropriate architectural treatment. The level of architectural design regulation compliance required for each zoning district is listed below, as may be authorized in Chapter 165 of the Town of Derry Zoning Ordinances:

- 1. VERY HIGH Level of Compliance with Regulations:

- a. CBD/TBOD. These districts encompass the downtown area and are highly sensitive because of the importance and challenge of maintaining a pleasing pedestrian environment.

This is the Central Business District, which includes the areas north and south of Broadway, with Rollins Street and Lenox Road on the north, Maple and Central Streets on the west, Marlboro Road and Park Avenue on the east, down Birch Street to South Avenue on the south, back to Central Street. As one travels closer to the core areas traditionally the buildings are taller, closer to the sidewalk, built of more substantial materials, and more elaborate in design and detailing. This is the Traditional Business Overlay District that have frontage lots along East and West Broadway from Maple Street to Crystal Avenue and Birch Street.

- 2. HIGH Level of Compliance with Regulations:

- a. RESIDENTIAL DISTRICTS. MFR / MHDR / CBD. These areas include Multi-Family Residential Districts as well as multi-family uses in the Downtown Central Business

District and multi-family development in some of the older high density residential neighborhoods close to the traditional core downtown area.

b. OBD / OMBD. These areas are architecturally sensitive because some older neighborhoods that are zoned for mixed use have been harmed by incompatible multi-family and non-residential development. These are transitional districts, and as such the new non-residential components shall respect the character and nature of the existing residential uses. New development shall blend in with the traditional character of these neighborhoods in order not to diminish property values and the small scale pedestrian nature of these areas.

These districts include the Office/Business District along West Broadway from the Londonderry Town Line to Maple Street, the Office/Medical/Business District which is the area along Birch St. adjacent to Parkland Hospital to Shute's Corner.

c. NEIGHBORHOOD COMMERCIAL. This district would allow for limited retail sales in the residential districts in the outlying areas of town, primarily in the Medium, Low-Medium and Low Density Residential Districts.

3. MEDIUM HIGH Level of Compliance with Regulations:

a. GC / GC-II / IND-II/ IND-IV. It is important to enhance the quality of commercial development and light industrial along these corridors. All serve as gateways to our Town, carry high levels of traffic, and are the most prominent areas of the Town. On the other hand, an intensive automobile oriented and big box/small box character is already established in many areas. This district includes different areas of town. It includes the Route 28 (Rockingham Road) corridor, Ryan's Hill south to the Windham Town Line, the Webster's Corner area (Island Pond/Rockingham Road intersection), Crystal Ave up to Ross' Corner, Folsom Rd, By-Pass 28 and Tsienneto Road. It also includes the Route 28 (Manchester Road) corridor.

b. IND-I / IND-III / IND-IV / IND-V / IND-VI / ORD. Derry seeks to enhance the quality of its industrial parks. These areas include Industrial Parks, Office/Research Districts, office / light industrial districts and the Windham Road area, Ash Street Extension area, the area behind Ashleigh Drive and the area of A Street, B Street and Franklin Street.

### **Section 170-85 General Requirements**

A. An application is considered to meet the design requirements of the Architectural Design Regulations if the Planning Board, in its judgment, determines that the application overall demonstrates substantial compliance with these Regulations. In reviewing plans under these Regulations, the Planning Board shall take into account the level of expected compliance based on the zoning district in which the development is to occur, as defined in Section 170-84, the nature of the surrounding uses, style of the surrounding buildings, and special features of historic, cultural or community interest in the vicinity of the development.

B. The regulations contained herein do not expect to foresee all possible building situations. Decisions concerning such unforeseen will be made with these regulations in mind. Where the Planning Board finds unnecessary hardship may

result from strict compliance with these regulations with respect to a particular tract of land, the Board may modify or waive these regulations so that substantial justice may be done and the public interest secured, provided that:

1. the waiver shall not have the effect of nullifying the intent and purpose of these regulations;
  2. the Planning Board requires such conditions as will, in its judgment, secure the objectives of the regulations which are waived;
  3. the waiver is requested in writing;
  4. the waiver is based on evidence presented to the Board by the applicant;
  5. the Planning Board formally votes on such waiver; and
  6. the waiver is noted on the final approved plan.
- C. No particular architectural style is stipulated and innovative, contemporary, and distinctive designs are encouraged, provided they are respectful of general design principles, and fit within the architectural context of the neighborhood.
- D. Buildings shall be compatible with traditional New England architecture. They shall be articulated to express an architectural integrity and design continuity.
- E. While the use of a traditional architectural vernacular (gables, porticos, belt-courses, etc.) is desirable, designers are encouraged to use this vocabulary in creative ways.
- F. It is recognized that many national and regional chain businesses seek to build a standard design across the country or region without regard to local conditions. However, the Planning Board will evaluate all proposed designs for their compatibility with our own local community character and for conformance with the goals of these Regulations. It shall be the obligation of the applicants to develop designs that are compatible with our community character; the Town need not make adjustments to accommodate these template designs.
- G. Use of false or partial mansard roofs, unconventionally shaped roofs, overly bright colors, disproportionately sized building elements, crudeness of features, or a general plastic feel of the building, is not appropriate.
- H. Buildings shall possess an overall integrity. Architectural details shall not give the impression of being tacked on but rather shall be integral to the overall design.
- I. The reuse of existing structures that have special architectural, historical, cultural, or contextual value by the applicant is strongly encouraged.
- J. Modifications and additions to existing buildings shall be harmonious with the character of the building.
- K. Building design shall be consistent with other features of the site - signage, landscaping, lighting, fencing, outbuildings, etc.
- L. Signage shall reflect the architectural character of the building.

## **Section 170-86 Design Elements**

- A. Proposed designs will be evaluated on how well the project's theme, site design and building design is integrated into its neighborhood and the project's consistency with

Derry's Master Plan. A Checklist of Design Elements is available to facilitate a consistent and orderly evaluation of a project. The applicant is encouraged to use the checklist throughout the project's design process and in the presentation of that project to the Planning Board.

- B. The Design Elements Checklist includes two sections, Site and Building, based on the assumption that good design starts with site development and evolves into an integrated design plan for the proposed construction.
- C. The Site portion of the Design Elements Checklist addresses various elements such as setbacks, alignment with the street, relative spacing with respect to other structures and the use of and integration with natural features. Buildings shall not be oriented at odd angles to the street unless this is already the prevailing pattern in the area or if it is dictated by strong topographic or site consideration.
- D. Site development shall address the quality of the streetscape and pedestrian friendly access especially in those districts that encourage village or downtown environments. Way-finding for both vehicles and pedestrians should not be dependant on just signage; there should be a natural progression defined by landscape, pathways and building forms that attract the user to the project. Buildings shall be brought to the front of the site with parking and service elements away from the street frontage. Lighting and landscape should enhance the spirit of the project, and advertising signage should be in proportion to the site and buildings.
- E. The building's orientation to the lot boundaries and to the streets, shall be considered in the overall design. This pattern reinforces the streetscape.
- F. The Building portion of the Design Elements Checklist addresses:
  - 1. Building Scale and Proportion. Building elevations, scale, massing and the proportional relationship between structures can compliment or detract from the architectural character of the surrounding area. The scale and proportion of proposed buildings shall take into consideration the scale and proportion of buildings as evidenced in the development pattern of the surrounding area. Visual conflicts between properties shall be minimized.
  - 2. Massing. The physical bulk or mass of buildings, particularly larger and elongated ones, can either enhance or detract from the architectural character of the community. Structures should be carefully designed to break up their mass into smaller visual components providing human scale, variation and depth.
  - 3. Roof. Rooflines can provide visual interest and help to reduce the apparent mass of a building. Traditional roofline types such as gabled, hipped, and gambrel that are evidenced in Derry's architectural heritage are strongly encouraged. Type, shape, pitch, and direction of roofs shall be considered in the design. Extensive areas of visible pitched roof should be broken up with dormers, cross gables, cupolas, chimneys, parapets, balustrades, and towers. Multi-story buildings (three or more stories) are encouraged to have an interesting roof line that can include a pitched roof, some appropriate cornice or parapet detail or a combination of both. An unadorned flat roof is

not acceptable in the areas where a high degree of compliance with these regulations is required.

4. Building façade. Much attention shall be given to create an attractive building façade that relates to the function of the building. Broad expanses of blank walls are inappropriate. Traditionally, the parts of a facade that might be embellished, or at least articulated in some fashion include:
  - a. A horizontal *base* where the building meets the ground (such as a different treatment for the foundation or water table)
  - b. A horizontal *top* where the building's roof meets the sky (such as a projecting cornice with brackets for a flat roof or an articulated pitched roof)
  - c. Horizontal sections (such as a belt course between stories or a change of material from the first to the upper stories)
  - d. The building's corners (such as corner boards or quoins, a material or texture change)
  - e. Vertical articulation in the middle (such as pilasters) the enhancement of the *door/entry* (such as a portico)
  - f. The areas around the *windows* (such as window trim, lintels and sills). Depth shall be created for the facade through use of projecting or recessed sections, bay windows, or arcades and porches.
  
5. Fenestration. Windows are an integral part of a building's facade and shall be incorporated on all building elevations, regardless of style, to humanize the building by giving it scale.
  - a. If the building has traditional lines, windows shall follow the proportions typical of that style, where they tend to be more vertical rather than squat. In less traditional styles, window patterns need to be in proportion to the façade. In all cases, windows and doors shall establish an orderly, balanced pattern and rhythm that makes the building inviting.
  - b. In pedestrian oriented downtown, use of large picture type windows for retail uses on the first floor is strongly encouraged. In residential areas and on upper floors of downtown buildings use of multiple panes of glass (or the appearance of multiple panes) rather than picture type windows is preferred. Windows abutting the street or sidewalk in downtown areas shall have a low window sill in relation to the street or sidewalk in order to create an open effect inviting to the pedestrian.
  - c. Shutters, where appropriate, shall be sized properly for the window openings, approximately one half the width of the opening, otherwise they shall not be used.

6. Entrance. The entrance is a primary element in defining a building. Articulation of that entrance is encouraged through use of a portico, canopy, sidelights or other devices scaled to the building façade. There shall be a primary entrance, located on the façade facing the street or the façade which the well designed site plan identifies as the front façade. In those zones where there is significant pedestrian traffic this entrance must also have a direct relation to the path of pedestrian travel. Use of a usable front porch on multi-family residential buildings is also encouraged.
7. Materials. The use of natural materials or materials that appear natural is preferred. Materials should be high quality and durable. Wood (clapboard and shingle), brick, stone, and terra cotta are the preferred materials, although fabricated materials which effectively imitate the character of these materials are also acceptable. Conventional vinyl and aluminum siding arranged in a horizontal clapboard pattern is acceptable but not preferred. If these materials are used, the construction details that hide the J-trim joints are recommended. Vinyl and aluminum siding use is inappropriate in downtown areas. The use of fiber reinforced stucco, block, textured block, and split block are discouraged, except in Industrial Districts.

Sheet plastic, sheet fiberglass, T-111 plywood, pecky shingles (shakes), simulated brick, and similar materials shall not be used. Use of highly reflective plastic or metal surfaces is inappropriate. Prefabricated metal wall panels and undressed concrete/cinder block shall not be used except in industrial park areas. When these materials are used in industrial park areas it is preferable to minimize the area over which they are used, minimize their use on front facades, and to combine their use with other materials, such as installing metal walls over a foundation of textured block.

8. Color. Subtle colors are appropriate on larger, plain buildings, whereas smaller buildings with more detailing can more effectively incorporate brighter colors. Bright colors should be limited to accent areas. High intensity colors, metallic colors, or fluorescent colors should not be used.
9. Lighting. Use of low key, low intensity wall pack or spot type lighting, or lighting of signage on buildings is appropriate. Use of lighting to highlight the building in a prominent manner, such as brightly illuminated roof fins or neon tube lighting is discouraged. Unless otherwise approved by the Planning Board, all pole mounted lighting fixtures shall be fed electricity by the use of underground electrical lines installed in accordance with applicable electrical code. Proposed exterior lighting fixtures shall provide for a level of illumination appropriate for the proposed use or uses. Illumination patterns proposed shall be such that all sites subject to these regulations will enjoy an adequate level of lighting to insure user safety and security. However, care shall be taken to avoid lighting patterns and intensities which "over light" a site, creating nuisance and glare at abutting properties, public streets and the neighborhood in general. . All lighting plans shall be subject to review and approval by the Planning Board.

## **Section 170-87 Particular Building Types and Components**

- A. Gasoline Station. Canopies shall incorporate features to avoid the sense of a large,

hovering mass. A pitched roof or other traditional roof form shall be used. Attractive examples include the Irving Station in Derry (Bypass 28 and Tsienneto Road). The fascia of the canopy shall be short in height, generally not to exceed two feet. All vertical surfaces shall be non-reflective and colors should be muted. All lighting within the canopy shall be recessed.

- B. Mini-Warehouses / Self Storage Facilities. When these facilities are located on major roads, their design must be very carefully considered. Deep setbacks shall be established. The structures shall be located perpendicular to the road with no doors facing the road. Use of textured block, brick, wood, or stucco is preferred though metal may be acceptable. Colors shall be muted.
- C. Garages. To the extent practical, doors should be placed on side facades not facing the street, doors should be screened from view by landscaping or other structures, or garages should be set back a greater distance from the street. Where the garage is attached to the main building it is preferable for the garage section to be subordinate to the main section by reducing the size and recessing it beyond the main section.
- D. Utility elements. All utility elements, such as dumpsters, utility meters, and ground mounted air conditioning units, shall be screened and located such that they are not visible from a public way or neighboring residential properties. Above ground storage tanks shall be screened or hidden from view.
- E. Fences. When necessary fences shall be made of traditional New England materials such as wood, wrought iron, brick, or stone. Use of chain link in front or side yards is discouraged. When they are used in these areas the chain links shall be covered in a colored vinyl (such as dark green) or equivalent. The design of any fencing shall be in character with the neighboring architecture and natural surroundings, and its scale and height shall be no greater than required to accomplish the purpose dictating the use of fencing.

## **Section 170-88 Process**

- A. The following items are required for site plan review, to facilitate architectural review. These submission requirements are in addition on any other submission requirements, as described in other sections of the LDCR.
  - 1. The Site Plan drawings are to show neighboring buildings, on a separate sheet or sheets, including those across the street, within a 200 foot radius of the proposed development, at the same scale as the site plan.
  - 2. Photographs of the immediate neighborhood. Digital images taken in a 360 degree panoramic series of shots, are preferred.
  - 3. A Landscape Concept or Landscape Plan depending on whether the submission is conceptual or a final submission. Refer to Sections 170-60B.20, 170-61A.20 and 170-64, for additional requirements.
  - 4. Lighting Concept or Lighting Plan depending on whether the submission is conceptual or a final submission. All such lighting plans shall, as a minimum, identify the location, number, height, type and intensity of all exterior lighting fixtures to be installed. Refer to Sections 170-60B.12 and 170-61A.19 for

additional requirements.

5. Signage Concept or Signage Plan depending on whether the submission is conceptual or a final submission. Refer to Section 170-61A.22 for additional requirements. Additionally refer to Chapter 165 of the Town of Derry Zoning Ordinance for signage restrictions and requirements.
  6. Architectural Elevations of each façade rendered in color. These shall also include facades of neighboring buildings either as photos or drawn with simple detail. Include locations of any lighting proposed to be located on the building.
  7. An image of how the landscape will likely look in five (5) years from the time of installation.
  8. Color of buildings, trim, etc.
  9. Actual samples of primary building materials/colors are not required, but accurate representations of all such materials, as to color, size, texture, and composition are required.
  10. Elevation drawings must be prepared by a registered engineer, architect, or landscape architect. Use of a registered architect is strongly encouraged.
- B. As part of the overall site review process, the Technical Review Committee will review plans for compliance with these regulations and report to the Planning Board as to the level of adherence. At its option, the Planning Board may secure the services of a consulting architect or other professional, to assist in the review of an application. The board may impose reasonable fees upon an applicant to cover this expense.

**Minimum Lot Area By Soil Type**

<b>SOIL TYPE</b>	<b>LOT SIZE</b>	<b>SOIL TYPE</b>	<b>LOT SIZE</b>	<b>SOIL TYPE</b>	<b>LOT SIZE</b>
111CH	45000	212CH	80000	23XDH	140000
111DH	60000	212DH	95000	23XEH	NA
111EH	NA	212EH	NA	241BH	50000
112BH	75000	213BH	50000	141CH	75000
112CH	80000	213CH	75000	241DH	100000
112DH	95000	213DH	100000	241EH	NA
112EH	NA	213EH	NA	243BH	50000
114*H	NA	214*H	NA	243CH	75000
11XBH	80000	21XBH	80000	243DH	100000
11XCH	100000	21XCH	100000	243EH	NA
11XCH	100000	21XDH	140000	244*H	NA
11XEH	NA	21XEH	NA	24XBH	90000
121BH	40000	221BH	40000	24XCH	130000
121CH	45000	221CH	45000	24XDH	180000
121DH	60000	221DH	60000	24XEH	NA
121EH	NA	221EH	NA	251BH	90000
122BH	75000	222BH	75000	251CH	135000
122CH	80000	222CH	80000	251DH	150000
122DH	95000	222DH	95000	251EH	NA
122EH	NA	222EH	NA	253BH	90000
124*H	NA	223BH	50000	253CH	135000
12XBH	80000	223CH	75000	253DH	160000
12XCH	100000	223DH	100000	253EH	NA
12XDH	140000	223EH	NA	254*H	NA
12XEH	NA	224*H	NA	25XBH	130000
161BH	50000	22XBH	80000	25XCH	190000
161CH	55000	22XCH	100000	25XDH	240000
161DH	70000	22XDH	140000	25XEH	NA
161EH	NA	22XEH	NA	261BH	50000
164*H	40000	231BH	40000	261CH	55000
166*H	NA	231CH	45000	261DH	70000
16XBH	90000	231DH	60000	261EH	NA
16XCH	110000	231EH	NA	263BH	60000
16XDH	150000	233BH	50000	263CH	85000
16XEH	NA	233CH	75000	263DH	110000
211BH	40000	233DH	100000	263EH	NA
211CH	45000	233EH	NA	264*H	NA
211DH	60000	243*H	NA	266BH	NA
211EH	NA	23XBH	80000	26XBH	90000
26XCH	110000	33XBH	115000	412BH	145000
26XDH	150000	33XCH	155000	412CH	190000
26XEH	NA	33XDH	205000	413BH	90000
275*H	NA	33XEH	NA	413CH	135000

SOIL TYPE	LOT SIZE	SOIL TYPE	LOT SIZE	SOIL TYPE	LOT SIZE
311BH	60000	341BH	75000	414*H	NA
311CH	90000	341CH	100000	41XBH	150000
311DH	120000	341DH	125000	41XCH	180000
311EH	NA	341EH	NA	421BH	75000
312BH	95000	343BH	75000	421CH	115000
312CH	125000	343CH	100000	422BH	130000
312DH	155000	343DH	125000	422CH	165000
312EH	NA	343EH	NA	423BH	90000
313BH	60000	344*H	NA	423CH	135000
313CH	90000	34XBH	115000	424*H	NA
313DH	120000	34XCH	155000	42XBH	150000
313EH	NA	34XDH	205000	42XCH	180000
314*H	NA	34XEH	NA	431BH	150000
31XBH	100000	351BH	90000	431CH	150000
31XCH	120000	351CH	135000	433BH	115000
31XDH	160000	351DH	160000	433CH	50000
31WEH	NA	351EH	NA	434*H	NA
321BH	50000	353BH	90000	43XBH	175000
321CH	75000	353CH	135000	43XCH	235000
321DH	100000	353DH	160000	441BH	115000
321EH	NA	353EH	NA	441CH	150000
322BH	85000	354*H	NA	443BH	115000
322CH	100000	35XBH	130000	443CH	150000
322DH	135000	35XCH	190000	444*H	NA
322EH	NA	35XDH	240000	44XBH	175000
323BH	60000	35XEH	NA	44XCH	235000
323CH	90000	361BH	70000	451BH	135000
323DH	120000	361CH	100000	451CH	205000
323EH	NA	361DH	130000	453BH	135000
324*H	NA	361EH	NA	453CH	205000
32XBH	100000	363BH	70000	454*H	NA
32XCH	120000	363CH	100000	45XBH	195000
32XDH	160000	363DH	130000	45XCH	285000
32XEH	NA	363EH	NA	461BH	105000
331BH	75000	364*H	NA	461CH	150000
331CH	100000	366*H	NA	462BH	105000
331DH	125000	36XBH	110000	463CH	150000
331EH	NA	36XCH	130000	464*H	NA
333BH	75000	36XDH	170000	466*H	NA
333CH	100000	36XEH	NA	46XBH	165000
333DH	125000	375*H	NA	46XCH	195000
333EH	NA	411BH	90000		
334*H	NA	411CH	135000		

**Table Of Geometric Standards**

	<b>Arterial</b>	<b>Collector</b>	<b>Service</b>
1. Minimum R.O.W. Width	80'	66'	50'
2. Minimum angle of intersection (90° Desirable)	80°	80°	80°
3. Min. tangent length at intersections & between reverse curves	300'	200'	100'
4. Minimum centerline radius	955'	573'	300'
5. Cul-de-sacs:			
a. Maximum length	N/A	N/A	2,000
b. Min. radius of R.O.W. at closed end	N/A	N/A	75'
c. Min. radius of pavement at closed end	N/A	N/A	62'
d. Min. pavement width at closed end	N/A	N/A	24'
6. Minimum Street Grade	1.5%	1.5%	1.5%
7. Maximum Street Grade	4%	6%	6%
8. Maximum grade within 75' of intersections & cul-de-sacs	2%	2%	3%
9. Minimum K value for vertical curves			
a. Crest vertical curves	80	60	30
b. Sag vertical curves	70	60	40
10. Pavement (See Figure 1)			
a. Minimum width	40'	36'	24'
b. Minimum cross slope	2%	2%	2%
c. Maximum cross slope	4%	4%	4%
d. Minimum sand sub-base to bedrock*** (Coarse Sand)	2'	2'	2'
e. 1) Minimum road sub-base thickness (Coarse Sand)	8"	8"	8"
2) Minimum road sub-base thickness (Bank Run Gravel)	8"	8"	8"
f. Minimum road base thickness (crushed gravel)	8"	8"	8"
g. Minimum bituminous pavement thickness (Concrete Base Course)	2.5"	2.5"	2.5"
h. Minimum bituminous pavement thickness (Concrete Wearing Course)	1.5"	1.5"	1.5"
11. Minimum width of shoulders	8'	6'	-
12. Sidewalks (where required)			
a. Minimum width	5'	5'	5'
b. Minimum gravel base course	6"	6"	6"
c. Minimum bituminous concrete surface	3"	3"	3"

Street classification system guidelines and definitions:

- Service roads: Local roads and streets are primarily intended to carry an average daily traffic volume of 1,000 vehicles per day or less. In general, service roads are those roads which provide access from individual parcels of land to collector roads and in some cases to arterial roads.
- Collector roads: Collector roads and streets are primarily intended to carry an average daily traffic volume of 1,000 to 5,000 vehicles per day; serving to link service roads with arterial roads.
- Arterial Roads: Arterial roads and streets are those roads which carry in excess of 5,000 vehicles per day.

**Lot Size By Soil Type Calculation**

DATE \_\_\_\_\_

PROJECT NAME \_\_\_\_\_ PARCEL ID \_\_\_\_\_

STREET NAME \_\_\_\_\_ DEVELOPER \_\_\_\_\_

OWNER (if different from developer) \_\_\_\_\_

Minimum Lot Size can contain up to 25% Group 5 soils Y\_\_\_ N\_\_\_

Soil Mapping reference \_\_\_\_\_

Ordinance Reference \_\_\_\_\_

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Soil Type</b>	<b>Soil Area (sf)</b>	<b>Group 5 Area (sf)</b>	<b>Group 6/ Ledge Soil Area (sf)</b>	<b>Min Area Req'd/ Lot (sf)</b>	<b>% Min Lot</b>
					<b>1    4</b>

**PART I**

If  $5 < 100\%$  and  $2 = 0$ , Upsize lot

If  $5 \geq 100\%$  then go to Part III

If  $5 < 100\%$  and  $2 > 0$  then continue to Part II

**PART II**

$1 \ 5 = \text{Composite Minimum Lot Size} =$   
 \_\_\_\_\_ = \_\_\_\_\_

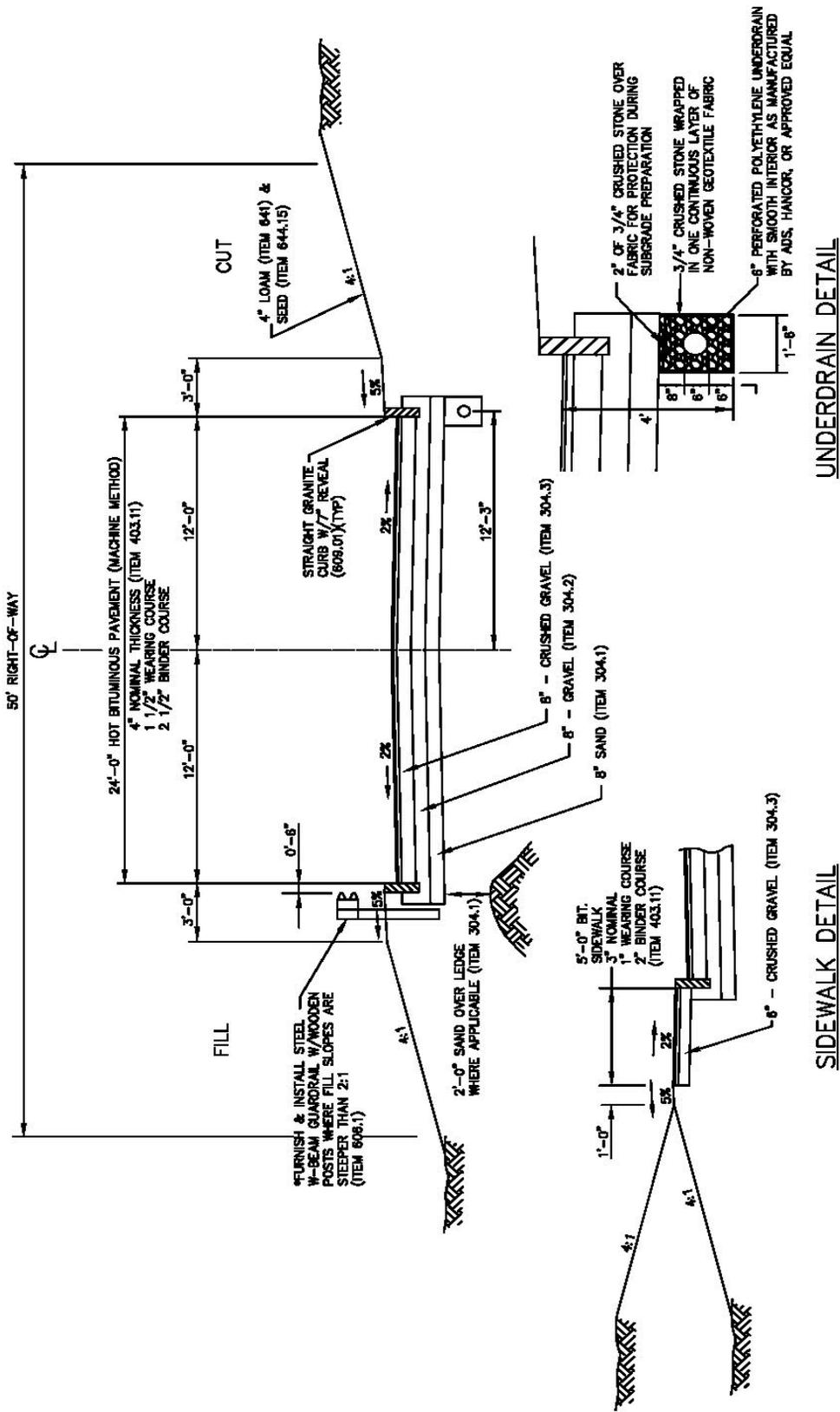
If  $2 \geq 25\%$  composite minimum lot and  $1 \geq 75\%$  composite minimum lot, continue to Part III, if not, upsize lot.

If  $2 < 25\%$  composite minimum lot and  $2 + 1 \geq$  composite minimum lot, continue to Part III, if not, upsize lot.

**PART III**

$1 + 2 + 3 = \text{Total lot area shown} =$  \_\_\_\_\_ or \_\_\_\_\_  
 (sf) (acres)

If total lot area shown is less than zoning requirements, then upsize lot.



UNDERDRAIN DETAIL

SIDEWALK DETAIL

FIGURE NO. 1  
 TOWN OF DERRY, NEW HAMPSHIRE  
 TYPICAL CROSS-SECTION - SERVICE ROAD  
 ADOPTED PLAN  
 MAY 18, 2005

NOTE:  
 ITEM NO.'S REFER TO NHDOT "STANDARD  
 SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION".  
 NOT TO SCALE