

**SUBDIVISION
REGULATIONS**

TOWN of BOW, NEW HAMPSHIRE

March 25, 2010

ADOPTION AND REVISIONS

Pursuant to the authority vested in the Bow Planning Board by the voters of the Town of Bow and in accordance with the provisions of Chapter 675, Section 6, (formerly Chapter 36, Sections 19-29), New Hampshire Revised Statutes Annotated, 1955, as amended, the Bow Planning Board adopts the following Regulations governing the subdivision and development of land in the Town of Bow, New Hampshire.

March 8, 1960 Town Meeting authorized the Planning Board to regulate Subdivision of Land per Warrant Article 16.

May 18, 1967 Subdivision Regulations originally adopted by the Planning Board.

Amendments:

February 24, 1971

August 17, 1972

March 7, 1974

February 5, 1976

August 2, 1979

February 3, 1983

July 28, 1988 (Comprehensive Revision)

March 30, October 5, and November 2, 1989

July 5, 1990

February 7, 1991

February 6, 1992

April 1 and July 8, 1993

January 6, April 7, and August 4, 1994

September 1, 1994

November 7, 1996

February 5 and August 6, 1998

December 19, 2002 and February 6, 2003

March 4, 2004

May 5, 2005

February 4 and March 25, 2010

SUBDIVISION REGULATIONS; TOWN OF BOW, NH

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Section 1.00 - Authority and Title:

Pursuant to the authority vested in the Bow Planning Board by the voters of the Town of Bow under Revised Statutes Annotated (RSA) 674:35 and in accordance with the provisions of RSA 674:36, as amended, the Bow Planning Board adopts the following Regulations governing the subdivision and development of land in the Town of Bow, New Hampshire, such Regulations to be known as the "Subdivision Regulations of the Town of Bow".

Section 2.00 - Definitions:

- 2.01 Abutter: Any person whose property is located in New Hampshire and either (a) adjoins or is directly across the street or stream from or (b) is within two hundred (200) feet of the land under consideration by the Board. Professionals whose stamp appears on documents submitted to the Board and holders of conservation easements on abutting properties shall be notified as abutters. For purposes of receiving testimony only, and not for purposes of notification, the terms "abutter" shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration. For purposes of receipt of notification by the Board of a hearing, 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.
- 2.02 Applicant: Any individual, firm, association, syndicate, co-partnership or corporation, trust or other legal entity commencing proceedings under these Regulations to effect a Subdivision of land or Lot Line Adjustment hereunder for himself or for another.
- 2.03 Application: Any Preliminary or Final Application.
- 2.04 Board: The Planning Board of the Town of Bow, New Hampshire.
- 2.05 Buildable Land: All land except that which is defined or described as Unsuitable for Subdivision or Building Purposes in Sections 3.02H or 8.03F of these Regulations.
- 2.06 Checklist: The list of information which must appear on a Plat and materials which must accompany an Application, which list must be completed, initialed and filed by the Applicant at the time of filing an Application.
- 2.07 Comprehensive Plan: The Master Plan for the Town of Bow of 1992, as it may be amended from time to time.
- 2.08 Concept Plat or Plan: A preliminary concept plan of a proposed Subdivision which satisfies the provisions of Section 6.01 of these regulations.
- 2.09 Condominium: The form of ownership of real property, and any interests therein, lawfully submitted to the provisions of RSA 356-B, in which individual owners own or lease separate units but together, or through an owners' association, own the common areas appurtenant to the units.
- 2.10 Drainage Right-of-Way: Land required for the installation of storm water sewers or drainage ditches, or required along a natural stream or watercourse for preserving the channel and providing for the flow of water therein to secure safety from flood damage and to preserve natural amenity.
- 2.11 Engineer: The Board of Selectmen of the Town of Bow or appointed agent.

- 2.12 Final Application: The filing by an Applicant of a Final Application Form and all other documents and information described in Section 4.05A.
- 2.13 Final Application Form: The form provided by the Board to be submitted by an Applicant to request approval of a Final Plat.
- 2.14 Final Plat or Plan: The Final Plat of a Subdivision which is presented to the Planning Board for final approval in accordance with Section 4.05 of these Regulations, which complies with Section 6.04 of these regulations and which, if approved, shall be filed with the Registrar of Deeds of Merrimack County.
- 2.15 Flood Zone: Any area designated as a Flood Zone Area on the Town of Bow Flood Insurance Rate Map, as adopted by the Board of Selectmen.
- 2.16 High Intensity Soil Survey: A study or survey of the soil types and characteristics of a plot or parcel of land which describes and defines the soil properties and soil types of the parcel in accordance with the Standards for a High Intensity Soil Map which are adopted from time to time by the Society of Soil Scientists of Northern New England or comparable standards of other comparable professional organization.
- 2.17 Lot: The whole area of a single parcel of land, a tract, plot or portion of a subdivision or other parcel of land intended as a unit for the purpose, whether immediate or future, of transfer of ownership or for building development. A lot is an area with ascertainable boundaries in single or joint ownership, undivided by a street, established by deed(s) of record or a segment of land ownership defined by lot boundary lines on an approved subdivision plan.
- 2.18 Non-Residential Development: Any development, use or change in use of land other than single or two-family residential development, whether or not such development includes a Subdivision or Resubdivision of the land.
- 2.19 Official Map: The official Town map adopted in accordance with RSA 674:10 (formerly RSA 36:16-18) as amended. Such a map shall be deemed to be conclusive with respect to the location and width of Streets and the location of public parks shown thereon.
- 2.20 Performance Guarantee: Any security, including performance bonds issued by a State of NH-approved bonding company, escrow agreements, Letters of Credit, and other similar collateral or surety agreements, which may be accepted by the Town in lieu of a requirement that a Subdivider complete certain improvements before the Board or other Town body approves a Plat.
- 2.21 Planned Unit Development and Cluster Development: A Subdivision which is planned and developed as a unified whole according to comprehensive and detailed plans, including plans as to the location of Streets, utilities, public and common open spaces, common facilities, lots or building sites, and according to

comprehensive design principles for all buildings and improvements intended to be located, constructed and used in the Subdivision. Development may occur in a single phase or a programmed series of phases. All of the Subdivision including common facilities shall be managed for the common benefit of the residents of the development.

- 2.22 Plat or Plan: A map or plan of a Subdivision.
- 2.23 Preliminary Application: The filing by an Applicant of a Preliminary Application Form and all other documents and information described in Section 4.03B of these Regulations.
- 2.24 Preliminary Application Form: The form provided by the Board to be submitted by an Applicant to request consideration of a Preliminary Plat.
- 2.25 Preliminary Design Plat or Plan: A preliminary plan of a proposed Subdivision which satisfies the provisions of Section 6.02 of these Regulations.
- 2.26 Preliminary Plat or Plan: A Plat of a Subdivision complying with the provisions of Sections 6.03 of these Regulations.
- 2.27 Request for Preapplication Design Review: A Subdivider's request for non-binding discussions with the Board filed pursuant to Section 4.02 of these Regulations.
- 2.28 Request for Preliminary Conceptual Consultation: A Subdivider's request for non-binding discussions with the Board filed pursuant to Section 4.01 of these Regulations.
- 2.29 Resubdivision: A change in a map of an approved or recorded Subdivision plat if such change affects any street layout on such map or area reserved thereon for public use, or any lot line; or if it affects any map or plan legally recorded prior to the adoption of any regulations controlling Subdivisions.
- 2.30 Site Plan Review: The review by this Board of an Applicant's plans for Non-residential Development pursuant to the Site Plan Review Regulations.
- 2.31 Site Plan Review Regulations: The Site Review Regulations for Bow, New Hampshire.
- 2.32 Street: Any street, avenue, boulevard, road, lane, alley, viaduct, highway, freeway and other public roadway. For the purposes of these Regulations "streets" shall be further divided into the following classifications:
 - 2.32.01 Arterial Street (Class A): An inter-community thoroughfare designed primarily for high volume traffic movement throughout the community and beyond.

- 2.32.02 Collector Street (Class B): A street providing a lower level of traffic service than an arterial street and which is designed to provide access between and among areas of the community.
- 2.32.03 Local Street (Class C): A residential street having the primary function of providing direct access to adjoining properties; such street not being designed to provide for traffic service between and among areas of the community. Class C streets shall not be built in areas with the potential of serving more than fifty (50) units or of serving any commercial facilities.
- 2.32.04 Private Street: A Street open to the public that is maintained by a private entity.
- 2.33 Subdivider: Any Applicant who has or who intends to request the Board to approve a Subdivision or Lot Line Adjustment.
- 2.34 Subdivision:
 - 2.34.01 "Subdivision" means the division of the lot, tract, or parcel of land into two (2) or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance, conversion to condominium form of ownership, or building development. It includes Resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided.
 - 2.34.02 The division of a parcel of land held in common and subsequently divided into parts among the several owners shall be deemed a subdivision under this title.
 - 2.34.03 The grant of an easement in gross to a public utility for the purpose of placing and maintaining overhead and underground facilities necessary for its transmission or distribution network such as poles, wires, cable, conduit, manholes, repeaters and supporting apparatus, including any unmanned structure which is less than two hundred (200) square feet, shall not be deemed to create any new division of land for any other purpose.
 - 2.34.04 Lot Line Adjustment: A minor adjustment of the location of the boundary between two or more Lots which results in no new Lots, which involves no construction of new Streets or other public improvements, and which is not a Resubdivision.
 - 2.34.05 Major Subdivision: Any Subdivision not classified as a Minor Subdivision.

- 2.34.06 Minor Subdivision: Any Subdivision which creates three (3) or fewer lots or condominium units with no potential for future subdivision, which would result in an aggregate number of greater than three (3) lots, which does not require the construction of any new Street or the extension of municipal facilities, and which is not in conflict with any duly accepted or approved Street, plan or map. For the purposes of determining the applicable requirements of these Regulations, a Lot Line Adjustment shall be deemed to be a Minor Subdivision.
- 2.35 Substantially Complete: The Select Board has the authority of RSA 676:12 V to determine the point at which a road has been constructed to a standard of Substantially Complete such that buildings, which depend on such new road for frontage or access, may be used or occupied.
- 2.36 Turnaround - Permanent: The permanent termination of a Street that will not, or cannot, be extended. This classification shall be made by the Planning Board after initial review and consultation.
- 2.37 Turnaround - Temporary: The area constructed at the termination point of any street which, in the foreseeable future, will be extended, either further onto the developer/owner's holdings or onto abutting properties. This classification shall be made by the Planning Board after initial review and consultation.

Section 3.00 - General Requirements:

- 3.01 Subdivider's Responsibility: It is the responsibility of each Subdivider or Applicant to read and follow these Regulations. If a Subdivider or Applicant does not fully understand the Regulations, it is his or her responsibility to seek the advice and counsel of Town officials, agents, or other qualified persons.
- 3.02 All Subdivisions: This Section sets forth certain general requirements that apply to all Subdivisions in the Town of Bow.
- A. State Grid Coordinates: All surveys, control and boundary information shall be tied into and refer to the State Grid Coordinate System.
 - B. U.S.G.S. Data: All contours, profiles and other elevations shall refer to current U.S.G.S. Data.
 - C. Buffer Strip: All Subdivisions shall provide for a "Green Strip" or "Buffer Strip" along all existing or new Streets, Zone boundaries, and abutting, established neighborhoods. This "strip" shall be equivalent to the building setback distance in width, or up to 50 feet wide as directed by the Board, and shall extend along the entire frontage of such Streets or Zone boundaries. Construction shall be prohibited in this "strip" and no existing trees of six inch (6") diameter or larger within the strip shall be disturbed. The Planning Board, in cases of fields or similar natural features may require the planting of adequate trees to provide for proper screening. The only exception to this Section shall be for the installation of proper driveways.
 - D. Substandard Streets: Where a Subdivision borders an existing Street that is below the standards set forth herein, the Applicant shall set aside and show areas for widening or realigning such Street to the extent necessitated by the Application. Any land set aside for this purpose shall be deeded to the Town and shall not be counted for lot size, set backs, or frontage. Said areas shall be marked "Road Right-of-Way" on the Final Plat.
 - E. Lot Boundaries: Prior to the issuance of any permits, on any new lots created by a Subdivision, all lot corners shall be permanently marked as provided in Section 7.04 of these Regulations. Also, all side lot lines shall be adequately flagged so as to allow proper orientation of improvements and the side lines shall be cleared to a depth sufficient to allow verification of the location of all improvements, i.e. house, well, septic system, driveway, etc.
 - F. State and Federal Approvals: Copies of all Applications to the State of New Hampshire for approval of on-site septic systems, alteration of terrain permits, dredge and fill permits, and driveway permits, and copies of Applications to federal agencies for Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1334 or for any other permit or approval required by the State of New Hampshire or federal agency

for the Subdivision must be filed with the Board prior to approval of the Preliminary Plat. Approval of any Final Application shall be conditioned upon filing with the Board copies of permits for all such state and federal approvals.

- G. Conveyances to Town: Before recordation of a Final Plan of a Subdivision requiring new road construction or the extension of municipal services, the owner shall transfer to the Town of Bow by Warranty Deed, all lands not platted for residential use and common area green spaces and recreational areas, or if commercial/industrial, for that use. Open spaces of adequate proportions and suitably located streets may be required to accommodate existing and prospective traffic and to afford adequate light, air, and access of fire-fighting apparatus to buildings and equipment and be coordinated to pose a convenient system. The lands described above shall include but not be limited to, the following categories:

Public parks, recreation areas, recreation easements, open space, road rights-of-way, future extension requirements for roads, strips of land reserved for access to abutters and/or future streets, all other rights-of-way or dedicated lands.

- H. Unsuitable Land: Land of such character that it cannot be safely used for building purposes because of danger to health or peril from fire, flood or other hazard shall not be platted for residential occupancy, nor for other use which would tend to increase the danger to health, life or property or aggravate the flood hazard. Land subject to periodic flooding, poor drainage or other hazardous conditions, shall not be subdivided. Land with unsuitable soil or inadequate capacity for individual sanitary sewerage disposal systems shall not be subdivided unless connected to a common sewer system. No land described above and no land designated as Flood Zone or shown to be bog, marsh, swamp area, area of high water table, or designated as wetlands as set forth in the Town of Bow Zoning Ordinance Article 10.01, or any similar situation, or area necessary for the protection of aquifers which may serve as future sources of drinking water for the Town, or with slopes in excess of thirty-three percent (33%), or ledge which is exposed or lying within four (4) feet of the soil surface, or which is subject to an easement or a right-of-way in favor of the Town, County, State, Federal Government, or any third party shall be counted toward the required minimum lot size, but shall be allowed to be added to lots if the public welfare and safety is protected. Any land covered by any soils listed by the "Merrimack and Belknap Counties Soils Survey", USDA Natural Resources Conservation Service as poorly drained or very poorly drained, shall likewise not be counted towards the minimum lot sizes. In the event that a Subdivision contains any land, soils or natural features described in this Subsection, the Applicant shall, at the discretion of the Board, submit as part of his Application the report and associated plan of the subdivision of a certified soil scientist as defined in RSA 310-A:76 who has performed a High Intensity Soil Survey of the Subdivision.

- I. Ledge: All areas of exposed ledge shall be identified and plotted on any Plat submitted to the Board.
- J. Protection of Natural Features: Due regard shall be shown for all natural features, such as trees, water courses, scenic points, rare plant or animal species, historic spots and similar community assets, which if preserved, will add attractiveness and value to the Subdivision or preserve the natural resources of the Town. Where appropriate, the Board may require the Applicant to dedicate lands or grant conservation easements to the Town to protect such resources in a manner consistent with Section 3.03C of these Regulations.
- K. Driveway Access: The provisions of RSA 236:13 and 14 "Driveways and other Accesses to the Public Way" are adopted by reference into these Regulations and the provisions and conditions thereof are extended to include Town Classified Roads of Classes 4 and 5. It shall be the responsibility of the property owner to maintain all portions of driveways and associated drainage facilities located within public right-of-way areas.
- L. Scattered or Premature Subdivisions: The Board may disapprove any plat (a) where it finds that it would result in the scattered or premature subdivision of land such as would endanger or injure health, safety or prosperity by reason of lack of water supply, drainage, transportation or other public services or facilities, or necessitate an excessive expenditure of public funds for the supply of such services or facilities, and in this connection, may take into consideration off-site factors affecting the provision of public services, including the adequacy of existing roads and streets; or (b) where the Board finds that the proposed Subdivision would be contrary to the harmonious, coordinated development and growth of the Town as provided in the Comprehensive Plan.
- M. Disturbing Environment: No person who is required to submit an Application for approval of a Subdivision pursuant to these Regulations shall commence the construction of roads within the land proposed to be subdivided or clear the land of natural vegetation or place any artificial fill thereon or do any other act or acts which will alter the natural state of the land or environment, unless and until the Final Plat relating thereto has been submitted and approved in accordance with the requirements of these Regulations. Furthermore, no such construction shall commence prior to the conclusion of a pre-construction conference and issuance of written authorization in accordance with Section 9.00 of these regulations. Nothing in this paragraph shall be construed to prevent such preliminary ground surveys, marking by stakes, engineering studies, inspections, and testing (including test borings and test pits) as may be necessary to evaluate the suitability of the land for subdivision and to assemble the information required to be shown on a Preliminary Plat, provided, however, that such preliminary surveys, staking, studies, inspection and testing shall be accomplished with the minimum

disturbance or alteration of the natural state of the land environment.

- N. Town Sewer: If any portion of a Subdivision fronts on an existing street served or reasonably expected to be served by Town sewer; or fronts on a new street leading directly from a street served or reasonably expected to be served by Town sewer; or fronts an existing street and lies within the lesser of one hundred (100) feet per lot or one thousand (1000) feet of a street served or reasonably expected to be served by Town sewer; the Plat shall show appropriate extensions to the existing sewer lines and appropriate sewer connections from all improvements to the new or existing sewer lines. The use of on-site sewage disposal systems shall not be permitted in such a Subdivision after such sewer service becomes available.
- O. Utilities: All utility facilities, including but not limited to gas, electric power, telephone, and CATV cables, shall be located underground at the expense of the Applicant. Except for major transmission lines not intended to serve individual properties and except for existing utility lines along existing Town streets, all other above-ground utility lines on land to be subdivided must be removed and installed underground. Utilities shall be located within street rights-of-way in accordance with all applicable State and Local Regulations and utility company rules and regulations. Utilities shall not be located beneath the paved surface of any street except where necessary at intersections and for service connections.
- P. Access: Any road serving more than twelve (12) lots shall have an approved secondary means of egress. The secondary egress may, at the discretion of the Board, be parallel to the primary access, separated by a continuous island with a minimum width of 25 feet, to accommodate safety vehicles.
- Q. Fire Suppression Water Supply: A Subdivision that will result in twelve (12) or more lots shall install a 30,000 gallon cistern. The design and location shall be subject to approval by the Planning Board. Other means of providing water supply may be accepted by the Board after consultation with the Fire Chief.
- R. Condominiums: In addition to the information otherwise required to be filed pursuant to these Regulations, an Applicant who is seeking approval of a Condominium shall also file at the time of an Application copies of:
1. Condominium Declaration
 2. Condominium Bylaws
 3. Condominium Site Plan
 4. Condominium Floor Plan

5. Where applicable, evidence of filing of Application for Registration of the condominium with the New Hampshire Attorney General.

S. Review by Other Town Officials: Before approval of a Preliminary Plat is given, the Planning Board shall solicit written statements from the following Town Officials regarding the proposed application.

1. The Road Agent and Engineer as to the design of the street system, location of easements, and design of the water, sewer, and drainage systems, including appurtenances.
2. The Police Chief, or representative, as to vehicular and pedestrian traffic safety and access for emergency vehicles.
3. The Fire Chief, or representative, as to the adequacy of fire protection and access for emergency vehicles.
4. The Recreation Commission, or its Director, and the Conservation Commission as to the suitability and location of any lands proposed to be dedicated for Town open space, park or playground or other recreational purposes.
5. The Town Manager as to the design of extensions to water and/or sewer lines and capacity of existing water and/or sewer systems to service the new demand.

Town Officials may opt to attend the regular Planning Board meeting to express their concerns regarding the Preliminary Plat.

T. Compliance with Regulations: All Applications shall comply with the Zoning Ordinance and all other ordinances and regulations of the Town of Bow.

U. Manufactured Housing Subdivisions: RSA 205-D Manufactured Housing Installation Standards and amendments thereto is adopted herein by reference.

3.03 Major Subdivisions: The following general requirements apply only to Major Subdivisions:

A. Erosion Plan: All Applications shall include a "Soils Erosion and Sediment Control Plan", conforming to the recommendations and specifications of the NHDES NH Stormwater Manual, December 2008 or later update. Said plan shall address slopes, embankments, ditches, drainage ways, and the effect of the Subdivision on water bodies and all disturbed areas. These plans shall be stamped by a New Hampshire Registered Professional Engineer.

B. Drainage/Grading Plan: All Applications shall include a Drainage and

Grading Plan showing the entire area which is directly involved. The Plan shall indicate existing grades for the entire tract and proposed grading for all areas of proposed construction activity. The Plan shall show all existing and proposed drainage facilities, including but not limited to catch basins, all storm water culverts, headwalls, detention/retention basins, drainage swales, rip-rap areas, dams and weirs, groundwater recharge structures, and storm water flow dissipaters. The plan shall show all contributing drainage and sub-catchment areas and existing and proposed storm water flow calculations. All drainage plans for the Subdivision shall be based on hydrological calculations from said Drainage/Grading Plans. The hydrological calculations shall analyze 10, 25, and 50 year storm events. These Plans and accompanying calculations shall be prepared by and bear the stamp and signature of a New Hampshire Registered Professional Engineer. The developer shall provide appropriate detention and groundwater recharge facilities to assure that existing flow quantities or velocities will not be exceeded and that existing groundwater recharge will be maintained. A waiver of these regulations is required if the storm water drainage system creates any additional storm water flow quantities or velocities over other properties. Such waiver will be considered only where the developer has obtained easements therefore from all owners of said downstream properties.

C Parks and Recreation: Pursuant to RSA 674:36 II (d), (f), and (g), the Board may require the Applicant to dedicate land in a Subdivision to the Town for playgrounds, park trails, open space or recreation uses. The amount of land dedicated for such purposes shall equal up to ten percent (10%) of the gross land area of a Major Subdivision, and all of such dedicated land shall be Buildable Land in a contiguous parcel acceptable to the Board.

1. Subject to the approval of the Board, an Applicant may satisfy the parks and recreation dedication requirement in any one of the following manners:
 - a. Dedication to the Town of an area of Buildable Land equivalent to ten percent (10%), or such other percentage as the Board may require, of the gross area of land to be subdivided as described above. The Plat shall clearly show the area of land to be dedicated and the parcel(s) shall be clearly labeled "Town Recreation Land"; or
 - b. The donation of the cash equivalent of the value of a parcel of Buildable Land of a size equal to ten percent (10%), or such other percentage as the Board may require, of the gross area of the land to be subdivided. The value of the land shall be determined in its undeveloped state and shall be determined based upon a valid appraisal of the land. The appraisal shall be done by a qualified person, shall include at least three (3)

comparable sales, and shall be subject to the review and approval of the Board. The Board may hire its own appraiser, at the Subdivider's expense, to confirm the value of the property; or

- c. A combination of land dedication and cash donation; or
 - d. A combination of land dedication and park development; or
 - e. Other methods which meet the intent of this Section and which are in the public interest in regard to the specific conditions of the area of Town and the land to be subdivided.
2. Cash donations shall be placed in a Town fund dedicated to acquiring or developing park or recreation facilities. No portion of the funds are to be used for maintenance or operations.
- D. Phasing Plan Required: A written phasing plan shall accompany all Applications for Major Subdivisions. The plan shall specify the development time table for each phase of the Subdivision. The plan shall include approximate dates for road and other public improvement construction, for lot sales/development commencement, and for building occupancy. In cases where specific impacts have been identified, the Board may require that the development of a Subdivision proceed at a rate which will allow the Applicant and the Town a reasonable length of time in which to plan and prepare for impacts and to take steps to mitigate adverse impacts.
- E. Private Streets: Where access is to be provided to multiple parcels or sites via a Private Street, a statement shall be added to the recorded plan and included in each deed requiring each parcel, unit, or site owner to be responsible for a proportionate share of the total cost to upgrade the Private Street(s) to Town road standards in the event the Town, in accordance with RSA 231:28-33, chooses to conditionally lay out the Private Street as a Town road. The statement shall include each parcel, unit, or site owner's acknowledgment that the development has been approved conditioned upon the cost of any betterment being unconditionally borne solely by the owners of the land abutting or being served by the betterments. The total cost of the betterment shall include, but is not limited to, construction, engineering, right of way and drainage easements, and relocation of underground utilities.
- F. Restoration Plan and Performance Security Required: A restoration plan shall accompany all Applications for Major Subdivisions that require an Alteration of Terrain Permit or propose a new street. The purpose of the plan and security is to ensure that disturbed areas are permanently stabilized if construction ceases for more than one year, if erosion and sedimentation controls during construction are not maintained in accordance with the approved plan, if the developer disturbs an area outside the area or phase

approved, or if the Town determines that the site has been abandoned. The plan shall specify the methods and standards proposed to permanently reclaim disturbed areas. The plan shall be accompanied by an independent cost estimate to implement the restoration plan. The cost estimate shall be subject to approval by the Board. An approved performance security sufficient to implement the restoration plan shall be submitted prior to altering the natural state of the land (see 3.02 M).

3.04 Special Requirements: The following general requirements apply to certain large scale developments or developments which may have a significant impact on the Town, its services or facilities, as specifically provided herein. The cost of these assessments and studies will be borne by the Applicant.

A. Traffic Impact Assessment (TIA):

1. Where a Subdivision will result in the generation of an average of two hundred (200) weekday vehicle trip ends (according to Trip Generation, An Informational Report, Institute of Transportation Engineers), the Applicant must submit a TIA to the Board with its Preliminary Application. The TIA shall include, but not be limited to, information with respect to:
 - a. estimated vehicular trips per day,
 - b. an analysis of approaches,
 - c. an analysis of the circulation and channelization patterns,
 - d. a description and analysis of the location and type of existing and proposed traffic control devices,
 - e. pedestrian traffic and systems,
 - f. an analysis of signal warrants,
 - g. a description of the condition and capacity of the road network,
 - h. other analysis of specific impacts as identified by the Planning Board.
2. A "trip end" is defined as a vehicle movement either entering or leaving the site.
3. Examples of developments which would generate two hundred (200) weekday vehicle trip ends include (from Trip Generation, approximate values):

- a. 20 detached single family units,
- b. 40 manufactured housing units or condominium units,
- c. 20 motel units,
- d. 17,000 gross square feet general office building,
- e. 1,700 gross square feet shopping center,
- f. 1,200 gross square feet high turnover sit down restaurant,
- g. 8,400 gross square feet medical office building or clinic,
- h. 4,000 gross square feet hardware/paint store,
- i. Gasoline/service station,
- j. 1,200 gross square feet bank.

B. Fiscal Impact Analysis (FIA): Where a Subdivision would contain 30 or more dwelling units, or where the Planning Board finds that a commercial or industrial Subdivision may have an adverse fiscal impact upon the Town, the Applicant must submit an analysis of the projected tax and fee income to the Town and the projected operating, maintenance and capital costs of the Town with the Preliminary Application. The analysis must contain a summary of the services applicable to the Subdivision and of the capital facilities used to deliver the services.

- C. School Impact Analysis (SIA): Where a Subdivision would generate a school age population equal to one classroom according to current U.S. Census data from Merrimack County, the Applicant must submit an analysis of the impact of the Subdivision on the school system with the Preliminary Application.
 - D. Environmental Assessment (EA): The Applicant of each development containing ten (10) or more lots or twenty (20) or more acres shall submit a report from the New Hampshire Natural Heritage Inventory (NH Department of Resources and Economic Development) which identifies rare plant and animal species and exemplary natural communities in or near the proposed Subdivision with the Preliminary Application. If any of the species or communities are identified within or adjacent to the Subdivision, an EA addressing the impacts on the species and communities shall be submitted with the Preliminary Application.
 - E. Community Services Impact Assessment (CSIA): Where a Subdivision contains one hundred (100) lots, one hundred (100) residential units, one hundred (100) gross acres, eight thousand five hundred (8,500) gross square feet of office or commercial space, or seventeen (17) gross acres of industrial land the applicant shall submit an assessment of the demands that the development will place on existing or proposed community services including, but not limited to, police, fire, emergency, water, sewer, solid waste, roads, recreation, and Town offices with the Preliminary Application.
 - F. Other Considerations: The requirements contained in this Section 3.03 are based on thresholds at which the expected impacts will be measurable and at which point mitigation measures by the Applicant may be required by the Board. Nothing contained in this Section shall be construed to prevent the Planning Board from requiring other special investigations, at the applicant's expense or from requiring the above identified investigations at lower thresholds where, in the opinion of the Board, circumstances related to the development or the area warrant such special studies. An Applicant may not evade the application of the provisions of this Section 3.04 through phased or scattered development of a parcel. The Board may, in its discretion, consider the effects of both prior and potential development of the land owned by the Applicant or other prior or future owners of the Subdivision and require compliance with the terms of this Section.
- 3.05 Fees for Offsite Improvements: As a condition of the Final Approval of an Application the Board may require the Subdivider to pay a proportionate share of the costs of offsite improvements which are necessitated in whole or in part by the Subdivision.
- 3.06 Open Space - Residential Development: All residential Subdivisions resulting in ten (10) or more lots or including thirty (30) or more acres shall comply with the provisions of section 7.02 Open Space - Residential Development of the Zoning

Ordinance of the Town of Bow, and amendments thereto.

- A. To comply with section 7.02 B 2 of the Zoning Ordinance, the Subdivider shall submit a Yield Plan in conformance with Section 6.05 of the Subdivision Regulations.

Section 4.00 - Procedure:

4.01 Preliminary Conceptual Consultation:

- A. Prior to submission of an Application for Board approval, the Applicant may discuss the proposal with the Board's Agent, and may make an appointment to discuss the proposal at a regularly scheduled Board meeting by notifying the Board's Agent three (3) weeks prior to the meeting. At least one week prior to the regularly scheduled meeting, the applicant shall provide the materials required in 6.01. Prior to submission of a Subdivision Application resulting in ten (10) or more lots or including thirty (30) or more acres, the Applicant shall submit a Concept Plan and make an appointment to discuss the proposal.
- B. At the meeting, the Applicant may address the Board concerning the proposal but must limit the presentation to the intent, location of the proposal, and the materials identified in 6.01 without going beyond a general description of the basic concept.
- C. The Board may briefly outline the steps that an Applicant may take to obtain Board approval. It may discuss the content of the Master Plan of the Town and its relation to the potential Applicant's proposal. The Board may also cite specific Sections of these Regulations or the Zoning Ordinance. The proposal may be discussed in conceptual form only and in general terms, such as the desirability of types of development and proposals under the Master Plan. The Board may make suggestions which might be of assistance in resolving problems with meeting requirements during formal consideration.
- D. A proposal shall neither be accepted as an Application nor be approved or disapproved by the Board under this procedure.
- E. No comments made during this consultation shall bind either the Applicant or the Board.
- F. Statements made by Board members shall not be the basis for disqualifying said members or invalidating any action eventually taken on the Application.
- G. The time limits for Board actions under RSA 676:4, I(c) and Section 4.03I and 4.05D of these Regulations shall not apply to Preliminary Conceptual Consultation.
- H. The Board recommends that the applicant contact abutters to discuss the project. The applicant may notify abutters of the Conceptual Consultation or request that the Board agent notify abutters at the applicant's expense.

4.02 Preliminary Design Review Procedure - deleted 7/5/1990.

4.03 Preliminary Application:

- A. Board Agent: The Board shall designate an agent to receive all Applications.
1. The agent shall publish a schedule for conferences at which initial filings may be submitted. The schedule shall establish deadlines for making appointments for conferences. The schedule and deadlines shall be approved by the Planning Board.
 2. The Applicant shall contact the agent to schedule an appointment to make an Initial Filing.
 3. The Planning Board shall establish a fee for the appointment. The fee shall be due when the appointment is made.
- B. Submission of Initial Filing:
1. At the Initial Filing conference, the Applicant shall present three copies of the complete application package to the agent. During the conference the Applicant shall demonstrate that all required items are included.
 - a. if all required items are included, the Applicant shall submit the materials under C. Initial Filing;
 - b. if required items are missing, the Applicant shall repeat the steps as outlined in 4.03 A 2 & 3 above.
- C. Initial Filing:
1. The Applicant shall file with the designated agent:
 - a. three (3) copies of a completed Preliminary Application Form;
 - b. three (3) copies of a Preliminary Application Checklist;
 - c. seven (7) copies of a Preliminary Plan which complies with Section 6.03 of these Regulations;
 - d. Sufficient legible copies of the Preliminary Plan, reduced in size to no more than 11 x 17 inches, to provide 30 copies to the Board and one (1) copy to each Abutter and to each Town official referred to in Section 3.02S of these Regulations;
 - e. the appropriate filing fee based upon the fee schedule as may be set by the Board from time to time; and

f. if the Applicant signs the form rather than the owner, certification that the Applicant is agent for the owner.

2. Completed Preliminary Applications must include all of the items listed in subsection 4.03C1 and must be filed with the designated agent no later than the fourth Thursday prior to a regular meeting of the Board in order to be considered by the Board at such meeting. If any of the items listed in subsection 4.03C1 are missing or incomplete as of the filing deadline, the Application shall not be placed on the agenda for the next Planning Board meeting. A work session at which no vote may be taken is not a regularly scheduled meeting of the Board.

D. Notice to Abutters and the Public of Submission of a Preliminary Application:

The Board shall notify all listed Abutters and the Applicant of its intent to consider a Preliminary Application by certified mail mailed not less than ten (10) days prior to the date for official submission to the Board of a completed Preliminary Application. Such notice shall contain a general description (supplied by the Applicant) of the proposal and shall identify the Applicant and the location of the proposal and a reduced size copy of the Preliminary Plan. The Board shall also post such notice in two (2) public places in the Town and publish the notice in a local newspaper within 14 days of the date of the meeting date.

E. Action on Preliminary Application:

1. The official submission date of the Application shall be the date of the first regular meeting at which the Application is considered. At that meeting, the Board will consider whether the Application includes the information required by Sections 3.00 and 4.00 of these Regulations.
2. A Preliminary Application which is not complete will be rejected by the Board. If the Board votes to reject an Application, it shall provide the Applicant with written notice of its decision which shall describe the reasons for the rejection.

Yield Plan Acceptance. An applicant for Open Space Residential Development may request that the Planning Board accept a Yield Plan in conformance with Section 6.05 that does not include the information required by Sections 3.00 and 4.00. If accepted by the Board, the Board shall begin consideration of the Yield Plan within thirty (30) days and shall take final action within sixty-five (65) days in accordance with Section 4.03.

3. If a Preliminary Application is accepted by the Board, the Board shall begin formal consideration of the proposal within thirty (30) days thereafter. The Applicant may waive this and all other time periods

and consent to such extensions as may be mutually agreeable.

F. Resubmissions: After the application has been accepted by the Planning Board under 4.03 E, the applicant may submit revised materials to comply with Town Regulations, Ordinances, or design review comments. To be considered at a meeting of the Planning Board, such materials shall have been submitted to the agent a minimum of seven (7) calendar days prior to the meeting.

G. Requirement for Public Hearing:

1. Once a Preliminary Application has been accepted as complete by the Board, and except as described in Section 4.04, no Preliminary Application may be denied or approved without a public hearing.
2. Notice of any public hearing on an Application shall be given in accordance with Section 4.03D. If notice of the hearing was included in any prior notice, it need not be repeated. If a hearing is adjourned, no written notice of the continuation date will be given if the date, time and place of the continuation was made known at the prior hearing.
3. Hearings shall be conducted in accordance with the Rules of Procedure adopted by the Board.

H. Board Consultation with Specialists:

Throughout the process of Board consideration of an Application, the Board may consult with engineers, architects, soil scientists, attorneys, planners or others, at the expense of the Applicant.

I. Consent to On-Site Board Inspection:

1. By filing an Application, the Applicant consents to the inspection of the property by Board members and Board agents at reasonable times and in a reasonable manner. The consent includes attendance by Abutters, as defined in 2.01, and other interested parties at a posted on-site visit.
2. Prior to the Board's approval of a Preliminary Application, at least three (3) members of the Board shall schedule and conduct an on-site inspection of the property. All lot corners on existing streets, the centerlines of all new streets, wetlands, and the perimeter of the Subdivision shall be staked or flagged prior to such inspection.
3. The on-site visit and final action on the Preliminary Application may be postponed until no later than May 1st following the acceptance of the Application if, in the opinion of the Board, winter conditions

prohibit making a proper inspection and evaluation of the site.

4. An on-site visit is considered a meeting of the Planning Board. As such, minutes and attendance shall be taken and attendees have the same rights to hear and record the meeting as a meeting of the Board. Where an applicant states in writing that security issues as envisioned in RSA 91-A:3, II,(i) are present at the site and requests prior to scheduling of an on-site visit that on-site attendees not take photographs or use video recorders, the Board may prohibit such use.

J. Final Action on Preliminary Application:

1. Subject to the provisions of Section 4.03H, the Board shall approve or deny a Preliminary Application within sixty-five (65) days of its submission and acceptance by the Board. The Applicant may waive this time period and consent to such extensions as may be mutually agreeable.
2. If the Board denies a Preliminary Application, it shall provide the Applicant with written notice of its decision which shall describe the reasons for the denial.
3. If the Board approves a Preliminary Application, it shall notify the Applicant of the approval and any conditions of such approval, if the Applicant was not present at the meeting at which such approval was granted.
4. Upon approval of its Preliminary Application, an Applicant is authorized to file a Final Application with the agent of the Board. The Board's approval of any Preliminary Application shall lapse sixty (60) days after the date upon which such approval was given unless the Applicant shall have filed a completed Final Application with the agent of the Board.

4.04 Expedited Review:

- A. At the Board's discretion, any Application for: (a) minor Lot Line Adjustments, boundary agreements, or proposals which do not create buildable lot(s), or (b) a Minor Subdivision which creates no more than three (3) lots for building development purposes may be accepted and approved by the Board at one meeting subject to the notice and public hearing requirements described in these Regulations and subject to the Applicant's full compliance with these Regulations.
- B. At the time of the filing of such an Application, the Applicant shall specifically state whether the proposal qualifies for expedited review and shall file both

Preliminary and Final Application Forms, Checklists and Plans.

- C. The Board shall provide notice to all parties as provided in Section 4.03D of these Regulations of its intent both to consider the submission and the approval of the Application under these Expedited Review Procedures, and to hold a public hearing on the Application.
- D. The Board shall hold a hearing, with notice as provided in Section 4.03F of these Regulations, prior to approval or disapproval of the Application.
- E. No public hearing shall be necessary prior to the Board's action to disapprove an Application based upon the failure of the Applicant to supply information required by the Regulations, including Abutters' identification, the failure to meet reasonable deadlines established by the Board, or the failure to pay costs of notice or other fees required by the Board.

4.05 Final Application:

A. Filing:

- 1. The Applicant shall file with the designated agent:
 - a. three (3) copies of the Final Application Form;
 - b. three (3) copies of a Final Application Checklist;
 - c. five (5) copies of a Final Plan which complies with Section 6.04 of these Regulations;
 - d. Sufficient legible copies of the Final Plan, reduced in size to no more than 11 x 17 inches, to provide twelve (12) copies to the Board and one (1) copy to each Abutter and to each Town official referred to in Section 3.02S of these Regulations.
 - e. three (3) copies of any construction plans; and
 - f. the appropriate filing fee based upon the fee schedule as may be set by the Board from time to time and any required escrow deposits for review and inspection fees.
- 2. Completed Final Applications must be filed with the designated agent at least twenty-one (21) days prior to the next regular meeting of the Board after receipt of Approval of a Preliminary Application in order to be considered by the Board at such meeting. A work session at which no vote may be taken is not a regularly scheduled meeting of the Board.

B. Notice to Abutters and Public:

Notice of any public hearing on a Final Application shall be given as provided in Sections 4.03D of these Regulations.

C. Public Hearings:

No Final Application shall be approved or denied without a public hearing as provided in Section 4.03F of these Regulations.

D. Action on Final Application:

1. Subject to the provisions of Section 4.03H, the Board shall act to approve, conditionally approve, or disapprove any Final Application which has been timely filed and complies with these Regulations and with the approval of the Preliminary Plat within sixty-five (65) days after the Board voted to accept the Preliminary Application. The Applicant may waive this time period and consent to such extensions as may be mutually agreeable.
2. The Board may apply to the Board of Selectmen for an extension, not to exceed an additional ninety (90) days, to act on the Final Application. The Applicant may also waive this time period and consent to such extensions as may be mutually agreeable.
3. The Board may grant conditional approval of an Application, which shall become a final approval without further public hearing, upon certification to the Board by its designee or based upon evidence submitted by the Applicant of satisfactory compliance with the conditions imposed. Final approval may occur in this manner only when the conditions are:
 - a. minor plan changes whether or not imposed by the Board as a result of a public hearing, compliance with which is administrative and which does not involve discretionary judgment; or
 - b. conditions which are in themselves administrative and which involve no discretionary judgment on the part of the Board; or
 - c. conditions with regard to the Applicant's possession of permits and approvals granted by other boards or agencies. All other conditions shall require a hearing after notice in accordance with Sections 4.03D and 4.03F .
4. If the Board rejects a Final Application, it shall provide the Applicant with written notice of its decision which shall describe the reasons for

the rejection.

5. Upon approval, the Chairman shall sign and date the Final Plat as approved. Approved plats and any documents affecting covenants, deed restrictions, etc., with the exception of road and other construction plans, shall be recorded with the Merrimack County Registry of Deeds. "As-built" plans for roads and all other public improvements shall be filed with the Planning Board after approval of the Engineer and acceptance by the Planning Board. All conditions of approval as imposed by the Planning Board shall appear on the face of the final plat to be recorded. Recording of the plats and associated documents shall be the applicant's responsibility. A digital copy compatible with the Town Tax Map and three paper copies of the recorded plat and one copy of associated documents certified by the Merrimack County Registrar of Deeds shall be submitted to the Town prior to issuance of building permits or start of any construction activity, including but not limited to site clearing and grading activities, and within ten (10) days following the recording of the plat.
6. The Board's approval of a Final Application shall lapse if all conditions of Final Approval have not been met within ninety (90) days of the date of the Final Approval. Upon request, and where it can be shown to the satisfaction of the Board that the applicant has diligently pursued other required permits, the approval may be extended for an additional ninety (90) days to a total of 180 days from the date of Final Approval. Where the applicant demonstrates to the satisfaction of the Board that a hardship exists and that conditions beyond the control of the applicant have caused the delay, an applicant may request and the Planning Board may grant additional reasonable extension of this time period up to a maximum total of one year from the date of Final Approval.

4.06 Expenses and Fees:

All expenses incurred by the Town of Bow in processing an Application for Board action shall be borne by the Applicant. The cost of recording the Final Plat with the Registry of Deeds, cost of any required publication, cost of posting notices, cost of mailing notices of hearing, the reasonable anticipated cost of the consultation by the Board with any expert or specialist, and the reasonable anticipated costs to the Town for the services of the Board's designated agent, its attorney and its engineer, all must be paid by the Applicant at the time of filing an Application with the designated agent of the Board. All additional costs incurred during review of the Application shall be paid prior to Final Approval. Failure to pay these costs as specified will be valid grounds for refusal to accept the Application as complete, or for disapproval of the Application.

4.07 Modification of Approvals

- A. Minor design modifications and minor modifications of approved subdivisions may be approved by the Planning Board upon recommendation of the Road Agent/Town Engineer, Building Inspector, and Town Planner at a public meeting without specific notification of abutters provided that all of the following conditions are met:
1. The modification is the result of circumstances relating to the property that were not anticipated at the time of approval.
 2. The modification is minor, insubstantial, and will not in any way adversely affect abutters, future occupants, owners, or the public.
 3. In all other cases, modifications shall be approved only pursuant to the provisions of Section 4.03F of these regulations.
 - a. When the Board has determined that a requested modification shall require a public hearing in accordance with Section 4.03F, the Applicant shall be responsible for all expenses and fees as set forth in Section 4.06 of these regulations.

Section 5.00 - Non-Residential Development:

Refer to Site Plan Regulations, Town of Bow.

Section 6.00 - Plat Details:

Plans, reports, documents, and other materials submitted to the Planning Board to fulfill the requirements of the Subdivision Regulations shall be free of any restrictions on reproduction. Proximate to any copyright symbols, reservations of rights, or statements of ownership, shall be an affirmative statement which expressly agrees to reproduction.

6.01 Preliminary Conceptual Consultation: The Applicant shall prepare a Concept Plan of the site and surrounding properties in sufficient detail to allow the Planning Board to discuss the proposal. The Concept Plan should be drawn on a USGS, other topographical map or aerial photograph at a scale of one inch equals five hundred feet (1" = 500') or larger, and should show approximate tract boundary lines and tax map, block, and parcel numbers for the proposed area of development, all contiguous holdings of the Applicant, and the names and addresses of the owners of all contiguous abutting properties. All existing Streets, sewer and water lines, and other rights-of-way or easements should be shown as appropriate. One week prior to the meeting at which the concept plan is to be discussed, the applicant shall submit a summary of the project; a list of waivers, variances, and special exceptions required; the specific questions to be posed to the Board; and, if the applicant is not the owner, written permission from the owner to proceed.

6.02 Preliminary Design Plat Details - deleted July 5, 1990.

6.03 Preliminary Plat:

The Preliminary Plat shall be prepared to a scale of not less than one inch equals one hundred feet (1" = 100') or at greater detail as directed by the Board to indicate clearly the existing and proposed features of the site. Said plat shall be prepared on twenty-two by thirty-four inches (22" X 34") standard sheets measured from cutting edges. If one sheet is not of sufficient size to contain the entire area for the site and environs, the plat shall be divided into sections to be shown on separate sheets of equal size with reference on each sheet to the adjoining sheets. The Preliminary Plat shall show or be accompanied by the following:

- A. Date of survey, name and legal description of Subdivision, locus map superimposed on the Town Tax map (scale of 1"=1,000') showing the relation of the proposed Subdivision to existing streets, and surrounding property within one thousand feet (1000'), name of owner of record and Subdivider, north arrow showing grid north and magnetic north as of the date of the survey, and graphic scale.
- B. At least two (2) ties to New Hampshire State Grid Coordinate System shall be established on each section or submission of a subdivision. The bench marks shall be tied to previously established bench marks on previously submitted plats. Said bench marks to be plainly marked in the field and stationed on the final plat with its elevation.

- C. Tract boundary lines, right-of-way lines of streets, street names, easements and other rights-of-way, park areas, or land to be reserved or dedicated to public use. All lot lines with accurate dimensions, bearing or reflection angles and radii, arc, and central angles of all curves. All bearings shall be based on the State Grid Coordinate System.
- D. Water courses and flood zone locations with base flood elevations that may exist within five hundred feet (500') of the Subdivision boundaries. For Subdivisions that involve land designated as Special Flood Hazard Areas, the applicant shall submit sufficient evidence (construction drawings, grading, and land treatment plans) to allow the Planning Board to determine that the proposal is consistent with the need to minimize flood damage; that all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage; and that adequate drainage is provided so as to reduce exposure to flood hazards.
- E. Plans shall reflect all land within one thousand feet (1000') of any portion of the Subdivision in which the owner/Subdivider or any person or entity which has an interest in the owner/Subdivider has interest. If the plans include only a portion of the entire holdings, any possible future plans, in the form of a sketch, for these remaining holdings, shall be shown. Said plan to include possible road layout, lots, service, etc.
- F. The purpose of any easement or land reserved, or dedicated to public use shall be designated, and the proposed use of sites other than residential shall be noted.
- G. The tax block parcel number and names and addresses of owners of property abutting the tract to be divided. Proposed lots shall be numbered consecutively as instructed by the Town.
- H. Name and address of engineer or surveyor.
- I. Certification and seal of engineer or surveyor as to accuracy of the plat details.
- J. Where an Applicant proposes a temporary turnaround, sufficient documentation must be submitted to demonstrate that the road terminus is suitably located to facilitate the future extension of the road into adjoining properties.
- K. Where an Applicant proposes to extend a street which currently ends in a T-type turnaround, a plan for restoring the "ears" of the turnaround to a "natural" condition and continuing surface drainage through must be submitted. The "ears" may be left where the abutting property owners specifically request such treatment and where surface drainage is

appropriately accommodated.

- L. Existing and proposed ground elevation contours based on USGS topographic data and tied to a Town of Bow, State of New Hampshire, or United States government benchmark as follows:

- slopes 0% to 2% - two foot (2') contour interval plus spot-elevations
- slopes 2% to 5% - two foot (2') contour intervals
- slopes greater than 5% - five foot (5') contour intervals

- M. Existing soils delineation based on the "Merrimack and Belknap Counties Soils Survey" (Soils Maps, Version 4, 2007 or later edition) USDA Natural Resources Conservation Service available at Web Soil Survey and a legend which explains the map symbols, describes the NRCS soils groups with drainage class, and describes the properties of the soils regarding septic leach fields, basement/foundations, building construction, and road construction.

Soil types will typically range as follows:

- Group 1 - well-drained to excessively well-drained with rapid permeability
- Group 2 - well-drained with moderate permeability
- Group 3 - moderately well-drained and well-drained with hardpan
- Group 4 - somewhat poorly drained; bedrock relatively close to the surface
- Group 5 - poorly drained
- Group 6 - floodplain or very poorly drained

Examples of soil types which fall within these categories are:

Group 1

Colton (CoA, CoB, CoC, CtE)
Gloucester (GcB, GcC, GcD, GrB, GrC, GrD, GrE, GsD, GsE)
Hermon (HmB, HmC, HmD, HnB, HnC, HnD, HoD, HoE)
Hickley (HrE, HsA, HsB, HsC)
Merrimac (MmA, MmB, MmC)
Windsor (WdA, WdB, WdC, WdE)

Group 2

Agawam (Afa, Afb)

Group 3

Acton (AcB, AdB, AdC)
Belgrade (PcB)
Duane (DuB)
Ninigret (NnA)
Paxton (PaB, PaC, PaD, PnB, PnC, PnD, PnE)

Sudbury (SuA, SuB)
Woodbridge (WoB, WoC, WvB, WvC)

Group 4

Canaan (CaC, Cad)
Shapleigh (SgB, SgC, ShC, ShD, SoD, SoE)

Group 5

Au Gres (Aga, AgB, Aub)
Ridgebury (Rba, RbB, RdA, RdB)

Group 6

Limerick (Lm)
Ondawa (Of, Oh)
Pondunk (Po)
Rumney (Ru)
Scarboro (Sc)
Suncook (Sy)
Muck and Peat (Mp)

- N. All areas of wetlands and associated buffer areas as defined in the Town of Bow Zoning Ordinance Section 10.01 B. 2. with certification of Wetland Scientist. Very poorly drained soils, bogs, vernal pools, streams, and the high water mark of water bodies shall be labeled.
- O. A layout indicating how the site will be served by electric, telephone, and any other public utility must be provided. If the utility company(s) require an easement to provide service, no final approval shall be granted by the Board until such easements are secured. If no easements are required, a letter of intent to provide service from the utility company(s) must accompany the application.
- P. Locations of all existing and proposed sanitary sewer systems, water mains, and all storm water management facilities, including but not limited to catch basins, culverts, drainage swales, rip-rap areas, detention/retention areas, and dams and weirs. Drainage/grading plans shall be prepared by and bear the stamp and signature of a New Hampshire Registered Professional Engineer.
- Q. When individual sewage disposal systems are proposed, the plans for such systems must be approved by the appropriate Local or State agency. When a public sewage disposal system is not available, the Subdivider shall have percolation tests made and submit the results with the preliminary plat. Before the preliminary application is approved the location of the septic system as proposed or, if applicable, as approved by the NHDES Subsurface Systems Bureau shall be depicted on each lot.

- R. A statement that the proposed street center lines, lot locations, and required buffers have been adequately flagged on the ground at the site to allow on-site evaluation of the proposed Subdivision by the Board, Engineer, and Town Staff.
- S. Certification that the Applicant is agent for the owner or is the owner of the land, or that the owner has given consent under an option agreement.
- T. Data Listing: The following listed data shall be included on the preliminary plat prior to approval by the Bow Planning Board:
1. Area of Land subdivided _____ acres.
 2. Number of building lots _____.
 3. Length of streets _____ feet.
 4. Area of open space/conservation strips _____ acres.
 5. List of abutters with addresses.
- U. Construction Sequencing Plan. A plan outlining the construction process for all required improvements required for the Subdivision. The plan shall include:
1. the location of the construction entrance and site for mobilization.
 2. traffic control and traffic impacts for the construction entrance.
 3. the sequence for commencement of clearing, grubbing, and grading and the initial installation of sedimentation / erosion control facilities.
 4. the program for maintenance of sedimentation / erosion control measures.
 5. truck routes through town to the site.
 6. estimates of earthen materials to be removed from the site or to be brought to the site.
 7. location of stockpiles of earthen materials.
 8. timing of removal of existing traffic control devices.
 9. identification of areas likely to require blasting for construction of required improvements and duration of blasting activities.
 10. description of noise generating activities (see Noise Control Bylaw).
 11. areas for parking and access for construction workers.
 12. provisions for re-fueling and servicing construction equipment, including fuel storage, secondary containment, spill clean up, and proposed management procedures.
 13. detailed cost estimate for restoration of the site (re-establishment of stable grades, erosion / sedimentation control facilities, drainage facilities, construction of 4 inch thick layer of loam, and establishment of grass.
- V. Provisions and performance guarantees for the long term maintenance of private streets and quasi-public improvements including utilities, health and sanitation facilities, water supply, cisterns and hydrants, amenities, and other customary shared facilities, including proposed management procedures and contractual arrangements.
- W. Operational Brief for Major Subdivisions. A written description of the

development to include: natural features of the site and identification of those to be preserved; market orientation of the project and how the site features will be used in marketing; special design considerations or theme; access routes to the site; neighborhood and abutting sites and uses and proposed relationship to surrounding properties; known historical features of site; and NHDES / USEPA environmental status including known releases of regulated substances, hazardous waste sites, and storage tanks for regulated materials on site and surrounding properties.

X. Other information required by the Planning Board.

6.04 Final Plat:

In addition to all items listed in Section 6.03, the Final Plat shall be accompanied by the following:

- A. Locus Map at a scale of one inch equals one thousand feet (1"=1,000') and suitable for use in updating the Town Tax Map showing all proposed lots and streets and all existing lots and streets within one thousand feet (1,000') of the proposed subdivision.
- B. When any officer or body of the Municipality, State or County is required to approve a plat, approval shall be certified on the plat in an appropriate space provided therefore.
- C. Existing and proposed ground elevation contours based on accurate field survey as follows: (Contours shall be accurate within one half a contour interval.)
 - slopes 0% to 2% - two foot (2') contour interval plus spot-elevations
 - slopes 2% to 5% - two foot (2') contour intervals
 - slopes greater than 5% - five foot (5') contour intervals
- D. Cross-sections and profiles of streets, including proposed locations for underground utilities (cross-sections at fifty (50) feet intervals plotted at one inch equals ten feet (1"=10') horizontal and vertical). Cross sections shall be provided at stream crossings, showing proposed drainage and channel treatments. Profiles shall be shown for all proposed driveways where slopes exceed eight percent (8%) unless the drive is shown on the cross sections. Profiles plotted with the same horizontal scale as the plans and a horizontal to vertical scale ratio of five to one (5:1) respectively. All data based on a field survey. These plans shall bear the seal and certification of a Registered New Hampshire Professional Engineer.
- E. Profiles of sewers, storm drains, culverts, catch basins, headwalls, and all other drainage facilities, as well as sanitary sewers, water, gas and underground electric layouts showing feasible connections to existing or

proposed utility systems shall be required to accompany the final plat. These plans shall bear the seal and certification of a Registered New Hampshire Professional Engineer.

- F. Certification of approval of the subdivision by the NH Department of Environmental Services, Subsurface Systems Bureau, or appropriate successor agency, accompanied by a duplicate copy of all data submitted to them and any stipulations related to the approval.
- G. Final State of New Hampshire approvals when appropriate from the Department of Transportation (RSA 236:13), the NHDES Wetlands Bureau (RSA 482-A and RSA 483-B), and the NHDES Alteration of Terrain Bureau (RSA 485-A:17) shall be filed before Final Approval is granted.
- H. A lot area table which depicts for each lot the total area, buildable area, and the areas of wetlands, third party easements, and slopes greater than 33%.
- I. Certifications:

The following listed certifications shall be affixed to the final plan together with the appropriate signatures and seals (when available) prior to the approval by the Planning Board.

- 1. It is hereby certified that the lands subdivided on this map are owned by title of record and that consent to the approval of said map is given.

_____ (date) _____ (corporate or individual name)

- 2. I hereby certify that this map and survey has been made under my supervision. The date of the survey was:

_____ (date) _____ (Land Surveyor)

- 3. I have carefully examined this map and find it conforms with the laws and requirements applicable thereto.

_____ (date) _____ (Building Inspector)

- 4. This map is hereby approved by the Bow Planning Board at an official meeting held on _____ and shall be filed on or before _____ with the Merrimack County Registry of Deeds.

(date)

(Chair of the Bow Planning Board)

- J. All required variances and special exceptions granted by the Zoning Board of Adjustment and all waivers granted under Section 11.00 shall be noted on the Final Plat.
- K. The recorded Final Plat shall contain an approval note "All New Development on lots in the Subdivision shall be subject to the impact fees in effect at the time of building permit."
- L. Other information required by the Planning Board.
- M. The Final Plat once approved shall be drawn on mylar or equivalent material at a scale of not less than one inch equals one hundred feet (1"=100') or at greater detail as directed by the Board to indicate clearly existing and proposed features of the site. Said plat shall be prepared in compliance with all applicable statutory requirements and shall be prepared on twenty-two by thirty-four inches (22" X 34") standard sheets measured from cutting edges. If one sheet is not of sufficient size to contain the entire area of the site and environs, the plat shall be divided into sections to be shown on separate sheets of equal size with reference on each sheet to the adjoining sheets. All dimensions shall be shown to hundredths of a foot and bearing to at least the nearest thirty (30) seconds. The error of closure shall not be more than one to ten thousand (1:10,000).

Required information that can not be recorded per RSA 478:1-a (refer to sections 6.03 E., J., K., L., M., O., P., R., and U., and 6.04 C., D., and E.) shall be shown on separate sheets. The recorded sheets shall contain a note that "This plan represents sheets ___ of ___ . The non-recorded sheets are on file with the Town of Bow."

6.05 Yield Plan:

The Yield Plan shall be a realistic, reasonable, regular and ordinary layout reflecting a development pattern that could be expected to be implemented, taking into account the presence of wetlands and buffers, floodplains, steep slopes, existing easements and encumbrances, and suitability of soils for on-site sewage disposal. The plan shall depict lots that conform to dimensional standards of the Zoning Ordinance, roads, and other pertinent features of the site. The plan shall be prepared to a scale of not less than one inch equals two hundred feet (1" = 200') or at greater detail as directed by the Board to indicate clearly the existing and proposed features of the site. The Yield Plan shall show or be accompanied by the following:

- A. Date of survey, name and legal description of Subdivision, locus map superimposed on the Town Tax map (scale of 1"=1,000') showing the

relation of the proposed Subdivision to existing streets, and surrounding property within one thousand feet (1000'), name of owner of record and Subdivider, north arrow showing grid north and magnetic north as of the date of the survey, and graphic scale.

- B. Tract boundary lines, right-of-way lines of streets, existing easements and other rights-of-way, and land to be reserved for open space. All lot lines and right-of-way lines of streets shall be shown with accurate dimensions.
 - 1. Lots shall show gross and net buildable area and depict a 100 feet radius on the front to confirm required lot width.
 - 2. Within proposed street rights-of-way, areas of slopes in excess of 10% shall be identified.
- C. Water courses and flood zone locations within the Subdivision boundaries.
- D. All land within one thousand feet (1000') of any portion of the Subdivision in which the owner/Subdivider or any person or entity which has an interest in the owner/Subdivider has an interest. If the plans include only a portion of the entire holdings, the Planning Board may require a sketch for these remaining holdings showing possible road layout.
- E. The tax block parcel number and names and addresses of owners of property abutting the tract to be divided.
- F. Name and address of engineer or surveyor, and certification and seal of engineer or surveyor as to accuracy of the plan details.
- G. Existing and proposed ground elevation contours for areas containing roads and the front 200' of proposed lots. The contours shall be based on USGS topographic data and tied to a Town of Bow, State of New Hampshire, or United States government benchmark with a maximum of five foot (5') contour intervals.
- H. Existing soils delineation based on the "Merrimack and Belknap Counties Soils Survey" (Soils Maps, Version 4, 2007 or later edition) USDA Natural Resources Conservation Service available at Web Soil Survey and a legend which explains the map symbols, describes the Water Division soils groups, and describes the properties of the soils regarding septic leach fields.
- I. All areas of wetlands, surface waters, and associated buffer areas as defined in the Town of Bow Zoning Ordinance Section 10.01 B. 2. with certification of Wetland Scientist for areas containing roads and the front 200 feet of proposed lots. Very poorly drained soils, bogs, vernal pools, streams, and the high water mark of water bodies shall be labeled.

1. All wetland crossings required for roads shall be identified with approximate square footage of impact to wetlands and buffers.
- J. Locations of all existing and proposed sanitary sewer systems and water mains.
- K. A statement that approximate proposed street center lines and lot locations have been adequately flagged on the ground at the site to allow on-site evaluation of the plan.
- L. Certification that the Applicant is the agent for the owner or is the owner of the land, or that the owner has given consent under an option agreement.
- M. Data Listing: The following listed data shall be included on the Yield Plan:
1. Area of Land subdivided _____ acres.
 2. Number of building lots _____.
 3. Length of streets _____ feet.
 4. List of abutters with addresses.
- N. Other information required by the Planning Board.

6.06 Record Drawings (As-Builts):

To document the horizontal and vertical location of constructed roads, drainage and stormwater control facilities, fire suppression water supply, public and private utilities, other structures within road rights of way, and other required public improvements, the Subdivider shall submit record drawings in paper and electronic form in compliance with the Record Drawing (As-Built) Plan Requirements checklist in APPENDIX C.

Section 7.00 - Required Improvements:

Unless superceded or otherwise specified herein, all materials and construction methods used for Streets and Drainage shall meet NH Department of Transportation *STANDARD SPECIFICATIONS for ROAD AND BRIDGE CONSTRUCTION*.

7.01 Public and Private Streets:

- A. Subgrades: All topsoil, stumps, brush, roots, boulders, and like materials shall be stripped or removed from the proposed subgrade area. The subgrade shall be excavated to a depth not less than twelve inches (12") below the bottom of the bank run gravel grade or to such limits as the Engineer may direct and backfilled with compacted sand meeting the requirements of NHDOT Standard Specification 304.1. A geotextile fabric meeting NHDOT specifications for Geotextiles, installed in accordance with the manufacturer's specification over compacted fill, all as approved by the Engineer, may be substituted for the 12 inch compacted sand layer. The subgrade shall be shaped and compacted evenly as shown on the profile and cross sections (see typical). All soft and spongy places shall be excavated to such a depth as shall be necessary to stabilize the foundation of the road and refilled solidly with sub-base material as directed by the Engineer. Compaction is to be obtained by use of approved rollers and equipment, to at least ninety-five percent (95%) of the Standard Proctor Density (ASTM-698). Said density to be checked by an approved Testing Service, and the results of all tests are to be provided to the Town for incorporation into the proper records. All costs incurred for the conduction of such tests shall be the responsibility of the Developer/Contractor.
- B. That before any clearing has started on the right- of-way, the centerline of the new road shall be staked and side-staked at fifty (50) foot intervals. Sidestakes to be set back off the right-of-way at right angles from the centerline so as to be out of the construction area and with stationing and distances to the centerline of the road.
- C. Limits of clearing shall be marked by stakes or flagging. Distance from the centerline to be obtained from the cross-section.
- D. After clearing is done and before excavation is started, elevations shall be taken on the tops of sidestakes. Cuts and fills shall be marked on sidestakes.
- E. Embankments: Embankments shall be formed of suitable material placed in successive layers of not more than twelve (12) inches in depth for the full width of the roadway cross-section and shall be compacted uniformly and sufficiently to prevent settlement. Stumps, trees, rubbish, and other unsuitable materials of substance shall not be placed in the fill. The fill shall be allowed to thoroughly settle before applying gravel. Compaction is to be

obtained by use of approved rollers and equipment, to at least ninety-five percent (95%) of the Standard Proctor Density (ASTM-698). Said density to be checked by an approved Testing Service, and the results of all tests are to be provided to the Town for incorporation into the proper records. All costs incurred for the conduction of such tests shall be the responsibility of the Developer/Contractor.

- F. Base Course: The base course shall not be laid until the subgrade has been inspected by the Engineer. The base course shall conform to the typical sections. Base course shall be laid in layers not to exceed six (6) inches. Compaction is to be obtained by use of approved rollers and equipment, to at least ninety-five percent (95%) of the Standard Proctor Density (ASTM-698). Said density to be checked by an approved Testing Service, and the results of all tests are to be approved by the Town for incorporation into the proper records. All costs incurred for the conduction of such tests, shall be the responsibility of the Developer/Contractor.
- G. Hot Bituminous Concrete Pavement: Three inch (3") minimum N.H. Standards for road and bridge construction.
 - 1) Base Course = 2 inch (after compaction) Type "B"
 - 2) Wearing Course = 1 inch (after compaction) Type "E"
- H. Shoulders: Shoulders shall be constructed in the same manner as described above as noted on the typical cross-sections or as directed by the Engineer.
- I. Roadway Width: Centerlines of roadways shall coincide with centerlines of street rights-of-way and shall have the dimensions shown on the typicals.
- J. Immediate Installation of Street Name Signs: Once construction of a new street has commenced, a street name sign in compliance with Section 8.01I, shall be installed to facilitate the response of emergency vehicles.
- K. Driveways: During construction of Streets, paved driveways to individual lots shall be constructed from the edge of pavement of the street to the private property line or to the limit of grading, whichever is greater.

7.02 Drainage:

- A. Underdrains: Underdrains shall be installed where the character and composition of the soil in the roadbed and other areas of the subdivision render such installation necessary in the opinion of the Engineer. The location of the underdrain shall be four (4) feet beyond the traveled way and at a depth of two feet below subgrade, three feet in guard rail sections. A minimum 2 inch sand cushion in earth excavation and a 6 inch sand cushion in rock excavation shall be placed in the bottom of the trench for its full width and length to the grade of the bottom of the underdrain pipe. These

underdrains shall consist of perforated metal pipe or perforated fiber pipe of a minimum six (6) inches in diameter and laid in the bottom of a trench at such depth and width as may be necessary. The trench backfill shall consist of a mixture of stones or rock fragments and particles with 95 to 100 percent passing the 3 inch sieve and 25 to 70 per cent passing the No. 4 sieve.

- B. Storm drains, culverts, catch basins: Storm drains, culverts and related installations, including catch basins and drop inlets, shall be installed within or without the Subdivision as necessary to permit unimpeded flow of all natural water courses, to insure adequate drainage of all low points along streets, and to intercept storm water run-off along streets at intervals reasonable related to the extent and grade of area drained. (Where required, catch basins may be on both sides of the roadway on continuous grade at intervals of approximately three hundred (300) feet.) Drainage improvements shall meet the specification of AASHTO (American Association of State Highway Transportation Officials) in regard to material and strength requirements. Catch basins and drop inlets shall be equal to New Hampshire Standard Type E or acceptable to the Engineer. Storm sewer pipes and culverts shall be reinforced concrete, corrugated aluminum, corrugated steel, or equivalent and shall have a minimum two (2) foot cover over all pipes. Pipes constructed under the traveled way shall have a minimum cover of 4 feet, unless otherwise authorized. Headwalls where required shall be either of concrete or rubble masonry.
- C. Erosion protection ditches: Class C stone shall be provided in ditches where soil or velocity conditions warrant protection from erosion as determined by the Engineer.

7.03 Topsoil Protection:

Topsoil moved during the course of construction shall be redistributed to provide at least four (4) inches of cover to all areas of the Subdivision and shall be stabilized by seeding and mulching or planting. No topsoil shall be removed from the Subdivision site.

7.04 Monuments:

- A. All lot lines, beginning and end of curves, and points of a curve change shall be identified in the field by monuments in conformance with NH Land Surveyors Association Ethics and Standards for acceptable monuments (6.2 and 6.2a for materials), August 1989. Principal corners that monument the furthest extent of each lot shall be of stone or concrete, 4 inch X 4 inch X 35 inch long. Concrete bounds are to be reinforced with two reinforcing bars of a minimum diameter of ½ inch. The final plat shall identify each monument found or set and shall describe the monument.

A change in bearing along a property line or an accumulated change of

bearing of five (5) degrees or greater shall indicate separate lot lines and shall be monumented. Where such lines are marked in the field with stone walls, the stone wall may be used for monumentation, except on principal corners.

- B. All monuments shall be set under the direct supervision of a licensed land surveyor. All monuments shall be flush with finished grade. No monument shall be set until all construction which would disturb or destroy the monument is completed. The maximum distance between monuments shall be 500 feet.
- C. All monuments shall be set and their installation certified by a licensed land surveyor prior to recording the final plat unless installation of the monuments is assured by a performance guarantee in conformance with Section 9.02.

7.05 Water and Sewer Facilities

- A. Common systems: Such systems proposed by a Subdivider shall be of sufficient capacity to serve the Subdivision and shall be designed and constructed for incorporation into the future town or precinct systems. All such facilities shall meet the requirements of and be approved by, the NHDES Drinking Water and Groundwater Bureau, local and county health and public works agencies, and/or other public body having jurisdiction, and shall be accepted by the Engineer.
 - 1. Site plans to include:
 - a. Five (5) foot contour intervals.
 - b. Well site with two hundred (200) foot protective radius. No subsurface disposal system permitted in this area.
 - c. All lots numbered.
 - d. Distribution system with water line sizes, pipe material, buried depth of piping, all valving and hydrant locations.
 - e. Indicate type of establishment; manufactured housing park, apartment buildings, etc.
 - 2. Complete quality analysis for the well water as conducted by the NHDES Laboratory Services Bureau or other certified laboratory within the past six (6) months.
 - 3. Continuous forty-eight (48) hour yield test log of the well showing water level and rate of pumping at one hour intervals.

4. Schematic drawing of pumphouse piping.
5. Detailed elevation of pumphouse facilities.
6. Detailed elevations of well design.
7. Storage facilities to be provided.
8. Characteristic curve for all pumps-well and booster.
9. The proposed water systems must meet all the requirements of the NHDES Drinking Water and Groundwater Bureau at the date plans are presented to and accepted by the Town of Bow Planning Board.
10. Show that new and replacement water and sewer systems including on site and common systems be located, designed and constructed to minimize infiltration and avoid impairment when locations fall within five hundred (500) feet of a Flood Zone.

B. Individual Service: Individual wells and subsurface disposal facilities shall in all respects comply with all applicable local and/or state requirements including those of the NHDES Subsurface Systems Bureau. In areas not currently served by common sewer systems, it shall be the responsibility of the Subdivider to provide adequate information to the installation and operation of an individual sewerage disposal system (septic tank and drain field). The Subdivider shall be required to provide the necessary equipment and labor for the making of these tests, required by local, county, and/or state authorities having jurisdiction.

1. Show that new and replacement water and sewer systems including on site and common systems be located, designed and constructed to minimize infiltration and avoid impairment when locations fall within five hundred (500) feet of a Flood Zone.

7.06 Winter Conditions: All ditches, slopes, drainage ways, and other disturbed areas shall be loamed and seeded within two weeks of final grading. Seeding done after October 1st shall consist of fast germinating grasses and shall be considered temporary. Areas shall be regraded and reseeded as necessary into the following growing season. Final approval of grading and seeding shall not be granted before the following June 15th.

Erosion and sedimentation control measures and facilities shall be in place and maintained through winter until final grading and seeding is completed and approved. In addition the Developer/Contractor shall file an inspection and maintenance plan. The plan shall set forth the names, addresses, and telephone numbers (including night and weekend telephone numbers) of all responsible parties. The plan shall provide for monthly reports of periodic inspections and

inspections immediately following substantial rainfalls and snow melt conditions, as well as maintenance and corrective measures required. The reports shall be filed over the signature of the engineer/surveyor who designed the improvement or other similarly qualified individual.

- 7.07 Time Limit to Complete: At the time of the Board's approval of a Final Plat, the Board may specify a time limit, not to exceed three (3) years, within which all required improvements caused in the course of the work performed in the development of the Subdivision shall be completed. In the event no time limit is specified by the Board, all such improvements and repairs shall be completed within (3) years of the date of such Final Approval. This time limit may be extended by mutual agreement of the Subdivider and the Planning Board.

Section 8.00 - Design Standards:

The Subdivision plat shall conform to the design standards set forth herein to encourage good development patterns within the Town. Whether either or both an official map or comprehensive plan has or have been adopted, the Subdivision shall conform thereto with respect to streets, public open spaces and drainage ways.

8.01 Streets:

- A. General Design: All streets in the Subdivision, with the exception of a permanent turnaround (see 8.01G2), shall be designed to provide safe vehicular travel at a design speed of 30 MPH. Due consideration shall be also given to the attractiveness of the street layout in order to obtain an optimum livability and amenity of the Subdivision. Where safe vehicular travel and optimum livability and amenity can be demonstrated, alternative designs that incorporate accepted *traffic calming* techniques may be approved by the Planning Board. All Public and Private Streets shall comply with State Fire Code standards (NFPA 1141, Chapter 5 Means of Access) for Fire Department Access Roads. Provisions shall be made for the future extension of streets to adjoining unsubdivided property. Subdivisions that adjoin or include existing streets that do not conform to the width shown on the comprehensive plan or official maps or the street width requirements of these Regulations shall dedicate the differential width along either or both sides of said existing streets in accordance with Section 3.02D. If the Subdivision is along one side only, one-half (½) of the differential width shall be dedicated. Setbacks shall be measured from the new or future right-of-way line.

- B. Naming: No street shall have a name which duplicates or which is substantially similar to the name of an existing street. The continuation of an existing street, however, shall have the same name. Proposed street names shall be submitted to the Board of Selectmen for review and approval. Submittals shall be on the form and in the manner prescribed by the Selectmen.

- C. Cross-Section: Street right-of-way width shall be as follows:

	<u>Minimum (ft)</u>
Arterial (Class A)	80
Collector (Class B)	70
Local (Class C)	60

Right-of-way widths and other applicable cross- sectional standards are shown in Appendix B.

- D. Alignment: The minimum sight distance at intersecting roadways shall be 400 feet. Street jogs at intersections with centerline offsets of less than one hundred twenty-five (125) feet shall be avoided. The minimum centerline radii of curved streets shall be as follows:

Arterial (Class A)	500 feet
Collector (Class B)	300 feet
Local (Class C)	275 feet

All reversed curves on Class A and B streets shall be separated by a tangent at least one hundred (100) feet long. When required, the roadway shall be superelevated at a maximum rate of 6%. Streets shall be laid out so as to intersect as nearly as possible at right angles. No street shall intersect any other street at less than seventy-five (75) degrees.

- E. Design of intersections: Intersecting roadway pavements shall have a paved transitional area at all corners to accommodate turning movements according to the following radii:

<u>From: To:</u>	<u>Class A</u>	<u>Class B</u>	<u>Class C</u>
Class A	50	50	30
Class B	50	30	30
Class C	30	30	30

For all intersections in commercial and industrial areas, this paved area shall have a minimum radius of fifty (50) feet.

New streets shall be located such that minimum K values as shown in subsection F below are maintained on existing and new streets through the intersection.

- F. Grade: The centerline grade for any street shall not be less than five-tenths percent (.5%). Maximum allowable centerline grades shall be as follows:

Arterial (Class A)	6%
Collector (Class B)	8%
Local (Class C) Residential	10%

All changes in grade exceeding five-tenths percent (.5%) shall be connected by vertical curves of sufficient length to afford adequate sight distances, in the opinion of the Board. The minimum K value for sag vertical curves shall be 40, and for crest vertical curves, 30, unless otherwise required.

- G. Deadend Streets: Deadend streets shall be provided with an approved type turnaround, as determined by the Planning Board to be a "Temporary" or "Permanent" need. Design for the turnarounds shall be as follows:

1. Temporary turnaround: The right-of-way width, per classification of the roadway, shall be maintained to the end of the improvements and further, to the property line, if so ordered by the Board. An "L" type turnaround shall be constructed at the end of the road. Said "L" to have the dimensions shown on the typical.

The "ear" or "extension" that forms the "L" shall be deeded to the Town of Bow in the form of an Easement. Driveways shall not be located off of any portion of the "L".

The Easement shall stipulate that the Town has sole rights to use and maintain the area until such time as the Easement shall expire and the portion of the "L" which is no longer needed, expires. The portion of the "L" no longer needed shall revert to owners of the abutting lots. For the purposes of frontage requirements only, that portion of a lot that would front on an extension of a street when the "L" is discontinued, or the width of the right-of-way for the "L", shall be counted and not the lines around the "L". This type of turnaround shall be used only when the possibility of extension is evident. This type of turnaround shall not be considered as a permanent turnaround.

Where a Subdivider proposes to extend a street which currently ends in an "L" type turnaround or other temporary deadend, it is the Subdivider's responsibility to restore the temporary turnaround to through street standards. This includes, but is not limited to removing the "ears" or other maneuvering facilities where abutters desire and installing a suitable drainage system.

2. Permanent turnaround: All streets that shall permanently terminate, as shown on plans, shall have a turnaround constructed to the following minimum specifications: The right-of-way shall be flared so as to form a circular, or partially circular section or roadway for the ease of maintenance and travel. The radius of the centerline of the pavement around the turnaround shall be a minimum of seventy-five (75) feet. For dead-end streets in excess of three hundred (300) feet, the radius of the centerline of the pavement around the turnaround shall be a minimum of one hundred five (105) feet. Shapes such as a "tear drop" or a "P" are preferred over the "lolly-pop" shape. Pavement widths shall be the same as for the road servicing the development as will all other improvements within the turnaround area. The Deed to the Town for the roadway shall include ALL lands within the outermost dimensions of the turnaround area. All drainage, signs, and other improvements within the area of the turnaround shall be as per guidelines contained within these Regulations for "Required Improvements". (SEE TYPICALS IN REAR OF THESE REGULATIONS).

Where a Subdivider proposes to extend a street which currently ends in a permanent turnaround, it is the Subdivider's responsibility to restore the turnaround to through street standards. This may include, at the discretion of the Board, removing the paved surface, restoring to a natural state the previously paved area, providing proper access to abutting lots, necessary title and deed work required by the proposal, and other work required to create a through street to Town of Bow standards.

3. General: (1) Delineator posts or reflectors of a design approved by the Town Engineer, shall be furnished, located and installed as a part of the required improvements for all roadways and turnarounds; (2) the roadways constructed within the turnaround areas, shall conform exactly with the design criteria contained in these Regulations.
- H. Street Lights: Street lights of a type or style acceptable to the Board, the Director of Public Works, and the Police Chief, and compliant with RSA 9-D:2, III shall be provided at intersections and other locations as the Board may reasonably require, after consultation with the Director of Public Works and Police Chief. Street lights shall be required where needed for public safety based on traffic volumes and to achieve adequate intersection recognition. At all new intersections, conduits for underground electric power shall be installed to power future street lights.
- I. Street Signs: Street signs of a type of style acceptable to the Board, the Road Agent and the Police Chief shall be provided at all intersections.
- J. Mail Boxes: No portion of any mail box or mail delivery receptacle shall be installed closer than twelve (12) inches to the edge of pavement or curbing of any street.
- K. Driveways: Driveways shall be designed and constructed with grades which do not exceed 10% and to include a turnaround. Driveways in excess of 500 feet in length shall be designed and constructed so as to provide access for a SU (single unit) vehicle.
- L. Traffic Control: Traffic control signs, pavement marking, and other devices shall be installed in accordance with the Manual on Uniform Traffic Control Devices unless otherwise stipulated by the Planning Board or Engineer.

8.02 Blocks:

Blocks generally shall not be less than five hundred (500) feet, nor shall the length exceed one thousand two hundred (1200) feet. In blocks over one thousand (1000) feet long, pedestrian crosswalks may be required in locations deemed necessary by the Planning Board.

8.03 Lots:

- A. Lot dimensions and area shall not be less than the requirements of the Zoning Ordinance, or as required by soil or topography conditions.
- B. Insofar as is practical, side lot lines should be at right angles to straight streets, and radial to curved streets.
- C. Where extra width has been dedicated for widening of existing streets, lots shall begin at such extra width line, and all setbacks shall be measured from such line.
- D. Where there is a question as to the suitability of a lot or lots for its or their intended use due to shape or the presence of such factors as rock formations, steep slopes, unusual surface configurations, tendency to periodic flooding, poor drainage, unsuitable soil or soils, and inadequate capacity for sanitary sewer disposal, the Planning Board may withhold approval of such lot or lots.
- E. Lots shall be graded in such a manner so as to prevent the collection of water at low points thereon.
- F. Any land designated as Flood Zone or shown to be bog, marsh, swamp area, area of high water table or any similar situation, shall not be counted toward the required minimum lot size, but shall be allowed to be added to lots if the Public Welfare and safety is protected. Any soils considered by the USDA Natural Resources Conservation Service as being poorly drained or very poorly drained, in addition to the above conditions, shall not be counted towards the minimum lot sizes.

8.04 Easements:

- A. Easements for utilities across lots or centered on rear or side lot lines shall be provided where necessary and shall be at least twenty (20) feet wide.
- B. Where a Subdivision is traversed by a water course, drainage way, channel or stream, the Board may require that there be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water courses, drainage way, channel or stream, and provide for construction and permanent maintenance of associated storm water control facilities such as rip-rap, flow dissipaters, headwalls and catch basins. Required flowage easements, within the subdivision, shall be extended until a drop of 4 feet in elevation from the drainage structure's outlet is obtained.

8.05 Utilities:

All underground utilities shall be placed immediately after preparation of the roadway to subgrade, but prior to placement of and beneath select roadway materials in conduit in streets under construction. The conduit shall extend a minimum of three feet (3') beyond paved areas and shall be placed a minimum of 12 inches below subgrade, unless otherwise specified.

Crossings shall be perpendicular to the roadway whenever possible.

Excepting water and sewer facilities, underground utilities running parallel to the traveled way, shall be located a minimum of three feet (3') outside paved areas with a minimum of two feet (2') of cover and in the manner prescribed by the utility company providing service.

When underground utilities are encountered, the contractor shall notify the appropriate agency to assure proper construction procedure in that area. Any damage to a utility is to be reported to and repaired by that utility prior to backfilling.

A. Water and Sewer:

The Engineer shall oversee all work related to required water and sewer facilities.

1. All water and sewer facilities shall be designed by a registered professional engineer
2. Sanitary sewer mains shall have a minimum of six feet (6') of cover under street surfaces.
3. Water mains shall have a minimum of five and one half feet (5 ½') of cover under street surfaces.

B. Electric Power:

1. At crossings, underground electric conductors must be contained within rigid conduits (4 inch minimum diameter Schedule 80 PVC or rigid steel conduit).
2. Underground electric conductors shall have a minimum of 40 inches of cover.
3. Electrical site work shall be performed by Licensed Electrical Contractors, not general contractors.

C. Warning Tape:

An appropriately labeled warning tape shall be laid approximately 12 inches above all underground utilities within the street right of way.

8.06 Storm Drainage:

- A. General Design: Unless superceded or otherwise specified herein, all drainage design shall meet the standards for “Minor State Aid Highways and Betterments” contained in the NH Department of Transportation *Manual on DRAINAGE DESIGN FOR HIGHWAYS*.
- B. General Applicability: These design standards shall apply to drainage facilities referred to in sections 3.03 B Drainage/Grading Plan and 7.02 Drainage.
- C. Specific Design Standards: Drainage Structures shall be designed to accommodate storms of the following frequency:

Bridges	50 years
Culverts	25 years
Storm Drains for depressed sections	25 years
Storm Drains	10 years
Detention Ponds / Structures	10 years
Curbed Roadway & Roadside Ditches	10 years

Based on the Drainage Calculations required in section 3.03 B, the design engineer shall address potential adverse impacts to downstream improvements, property, and receiving waters.

Section 9.00 -Inspections and Performance Guarantee:

9.01 Performance and Inspection of Work:

- A. All work necessary for the construction of required improvements and the repair of damage to existing public improvements shall conform to the requirements of these Regulations. Such work shall be performed in a good and workmanlike manner, and shall be free from faults and defects. All materials incorporated in such construction shall conform to the requirements of the current State of New Hampshire's Standard Specifications for Road and Bridge Construction. Any work or materials not conforming to the foregoing standards may be considered defective and rejected by the Engineer. All work and materials rejected by the Engineer as defective shall be removed and corrected by the Subdivider. All work shall be completed within the time limits, if any, specified by the Planning Board, but in the absence of such specified limits and in all events no later than three (3) years from the date of the approval of the Final Plat, unless the time limit is extended by mutual agreement of the Planning Board and the Subdivider.

- B. The Engineer will be the Town's representative during the construction of required improvements. He shall at all times have access to the site when the work is in preparation and progress. He will make periodic visits to the site to familiarize himself generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the requirements of these Regulations. The Subdivider shall provide the Engineer in advance with a schedule of work to be performed outside of the Engineer's normal office hours and give the Engineer timely notice of the completion of each major stage in the construction of any required improvement so that the Engineer may inspect the work so completed prior to the covering thereof, and the Engineer shall make all such inspections with reasonable promptness so as to cause no delay in the work. In particular, the Subdivider shall in the case for streets, give timely notice to the Engineer of the completion of subgrades, drainage base course, and base and final surfacing. The Subdivider shall provide to the Engineer, the name and telephone number of the individual(s) responsible for the construction, so that he/she may be contacted for any emergency, night, or weekend maintenance problems.

- C. The Subdivider shall give the Engineer notice when any required improvements is completed and ready for final inspection. The Engineer will promptly make such inspection and, when he finds that the particular improvement has been fully completed in accordance with the requirements of these Regulations, he shall approve the same in writing. Such approval, in the case of a street, shall not constitute the legal acceptance of the street by the Town nor shall it modify in any way the requirements of law for the acceptance of streets by the Town.

- D. The Subdivider shall promptly remedy any defects in any required improvement due to faulty workmanship or materials which appear within a period of one (1) year after approval thereof by the Engineer.
- E. Notwithstanding the on-site observations and inspections and any approvals of required improvements issued by the Engineer, the Subdivider shall be and remain fully responsible for the performance of the construction work in accordance with the requirements of these Regulations and the Engineer shall have no responsibility for the failure of the Subdivider to carry out the work as required herein.
- F. The Subdivider shall upon demand, promptly reimburse the Town for the expense of all inspection work performed by the Engineer pursuant to the provisions of subparagraphs B and C of this Paragraph 1, Section 9.00. In the case of a Major Subdivision, the Subdivider shall file with the Town a cash deposit of such amount as the Engineer may reasonably require as security for such reimbursement, and if the Subdivider fails to make reimbursement as and when required hereunder the Town may appropriate such cash deposit as necessary to affect reimbursement.

9.02 Performance Guarantee:

- A. Estimate of Cost: Prior to the submission of the Final Plat to the Board, the Subdivider or owner shall obtain from the Engineer an estimate of the cost of construction of all improvements which will be required by the Board as a condition of final approval up to the standards set forth in these Regulations, together with an estimate of any damage to any existing public improvements caused in the course of the work performed in the development of the Subdivision.
- B. Posting of Performance Guarantee: As a condition of the approval of a Final Plat by the Board, the Subdivider shall provide the Town with a Performance Guarantee to assure the Town of the completion of improvements required under these Regulations and repair of potential damage to existing public improvements. In accordance with RSA 674:36 III, the Performance Guarantee shall be posted and in full effect prior to the signing of the plat by the Chair of the Planning Board.
- C. Amount: The Performance Guarantee shall be in an amount equal to one hundred and ten percent (110%) of the estimated cost of required improvements and potential damages to public improvements, and shall be upon conditions and in such form as the Board and the Board of Selectmen may require. The Performance Guarantee shall be in the form of a bond issued by a surety company registered and licensed to do business in the State of New Hampshire, a Letter of Credit or other collateral or surety arrangement, all in form and substance satisfactory to the Board of Selectmen, or a cash escrow, or a savings bank deposit book properly

endorsed to the Town and deposited with it.

- D. Term: The Performance Guarantee shall remain in full force and effect until the expiration of twenty-five (25) months after the date of the approval by the Engineer of the completion of all required improvements and repair of all damages to public improvements in accordance with the provisions of these Regulations, or the date that all latent defects have been corrected by the Developer and approved by the Engineer, whichever is later, and shall be conditioned in part upon the faithful correction by the Developer of any latent defects which appear within the period of two (2) years after the approval by the Engineer of any required improvements as set forth in these Regulations. Prior to commencing the two year latent defects period, the developer must complete all phases of winter maintenance for a complete freeze-thaw cycle (December 1 through April 1). Should defects appear, the developer shall make repairs acceptable to the Engineer and maintain the road for another complete freeze-thaw cycle. Prior to commencing the two year latent defects period, the developer must provide a complete set of "as-built" construction plans in conformance with Section 6.05 for all required improvements and utilities completed and documentation certified by a licensed land surveyor that all required monuments have been set in accordance with Section 7.00 - Required Improvements: 4. Monuments. In the case of a Letter of Credit, cash deposit or an assignment of a savings bank deposit book, the amount on deposit may be reduced by the Planning Board by resolution when portions of the required improvements have been installed, provided a sufficient amount not to exceed twenty-five percent (25%) of the total is retained to cover the correction of any latent defects which may appear within two (2) years following the approval by the Engineer of any required improvements as set forth in these Regulations. A joint inspection for latent defects shall be made by the Engineer and owner or Developer not earlier than the twenty-second (22nd) nor later than the twenty-third (23rd) month following approval by the Engineer.
- E. Commencement of Work: After approval of the Final Plat but prior to the commencement of any such work or the commencement of work on separate phases, the Developer or owner shall:
1. Contact the Engineer to schedule a preconstruction conference with the Public Works Director, Building Inspector, Utilities, and Town Planner.

The preconstruction conference checklist shall include at a minimum the review of the items listed under section 6.03 U Construction Sequencing Plan, the Construction Observation for Subdivision Roads checklist, related local permits and regulations, all required state and federal permits, and the Storm Water Pollution Prevention Plan.
 2. Notify the Engineer of a change in the owner or contractor to schedule

another preconstruction conference with the Public Works Director, Building Inspector, Utilities, and Town Planner.

3. Notify the Engineer in writing of the date on which work or required improvements are to be commenced and the date by which work is to be completed in accordance any conditions imposed by the Board, any conditions imposed by the Board of Selectmen, and the provisions of these Regulations.
 4. File a copy of the Storm Water Pollution Prevention Plan (SWPPP) with the Board agent and shall file a complete Notice of Intent with the US Environmental Protection Agency (EPA). The SWPPP shall be kept up to date and on site during construction.
 5. Receive the written authorization of the Engineer to commence the work.
- F. Default: If the required improvements and repairs to public improvements have not been installed and completed in accordance with the requirements of these Regulations or if any latent defects in such improvements or repairs appearing within a period of two (2) years after approval thereof by the Engineer have not been corrected as required herein above, then and in that event any cash deposit or savings bank deposit may be used to complete the improvements or correct the latent defects, and in the event the Performance Guarantee is in the form of a performance bond, Letter of Credit, cash escrow or other suretyship, the Town shall be entitled to exercise its rights under the appropriate documents to require the surety or issuer of the Letter of Credit to provide the Town with sufficient funds to complete such work.

9.03 Maintenance of Improvements and Facilities

- A. The recipient of subdivision approval or his successor shall be responsible for maintaining all improvements or facilities required by this regulation or approval conditions issued in accordance with its provisions. As illustrations, and without limiting the generality of the foregoing, this means that streets, parking areas, and water, sewer, storm water, and recreation facilities must be properly maintained so that they can be used in the manner intended. All vegetation required for screening, landscaping, or erosion and sediment control must be replaced if it dies or is destroyed.
- B. As provided in section 9.03A of these regulations, all facilities and improvements with respect to which the owner makes an offer of dedication to public use shall be maintained by the owner until such offer of dedication is accepted by the appropriate public authority.

Section 10.00 - Compliance with Regulations - Penalties:

No subdivision of land shall be made, and no land in any Subdivision shall be transferred, sold or offered for sale until a Final Plat, prepared in accordance with the requirements of these Regulations, has been approved by the Planning Board. As provided in RSA 676:16 (formerly RSA 36:27), any owner, or agent of the owner, of any land located within a Subdivision, who transfers or sells any land before a plan of the said Subdivision has been approved by the Planning Board and recorded or filed in the office of the Merrimack County Registry of Deeds, shall forfeit and pay a civil penalty of One Thousand Dollars (\$1,000) for each lot or parcel so transferred or sold; and the description of metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the transaction from such penalties. The Town of Bow may enjoin a transfer or sale which violates the provisions of this Section and may recover the penalty imposed by a civil action. In any such action, the prevailing party may recover reasonable court costs and attorney's fees as the same may be ordered by the court. The Town of Bow may invoke the authority of any applicable statute to obtain compliance with these regulations, including, but not limited to the provisions of RSA 676:15 Injunctive Relief or 676:17 Fines and Penalties; Second Offense.

Section 11.00 - Waivers:

The proposed Subdivision shall conform to the Zoning Ordinance of the Town of Bow. Where (a) strict conformity to these Subdivision Regulations would cause undue hardship to the owner of the land or where (b) specific circumstances relative to the subdivision, or conditions of the land in such subdivision, indicate that the waiver will properly carry out the spirit and intent of the regulations, a Subdivision plan substantially in conformity with these Regulations may be approved by the Board, provided that the spirit of these Regulations and public convenience and welfare will not be adversely affected.

Requests for waivers shall be submitted in writing and shall include the basis for granting the waiver. The Board may accept an oral request for waiver at the public hearing for a subdivision application. The basis for any waiver granted by the Board shall be recorded in the minutes of the board.

Section 12.00 - Amendments:

These Regulations may be amended or rescinded by the Planning Board but only following public hearing on the proposed changes. The Chairman or Secretary of the Planning Board shall transmit a record of any changes so authorized to the Merrimack County Registry of Deeds.

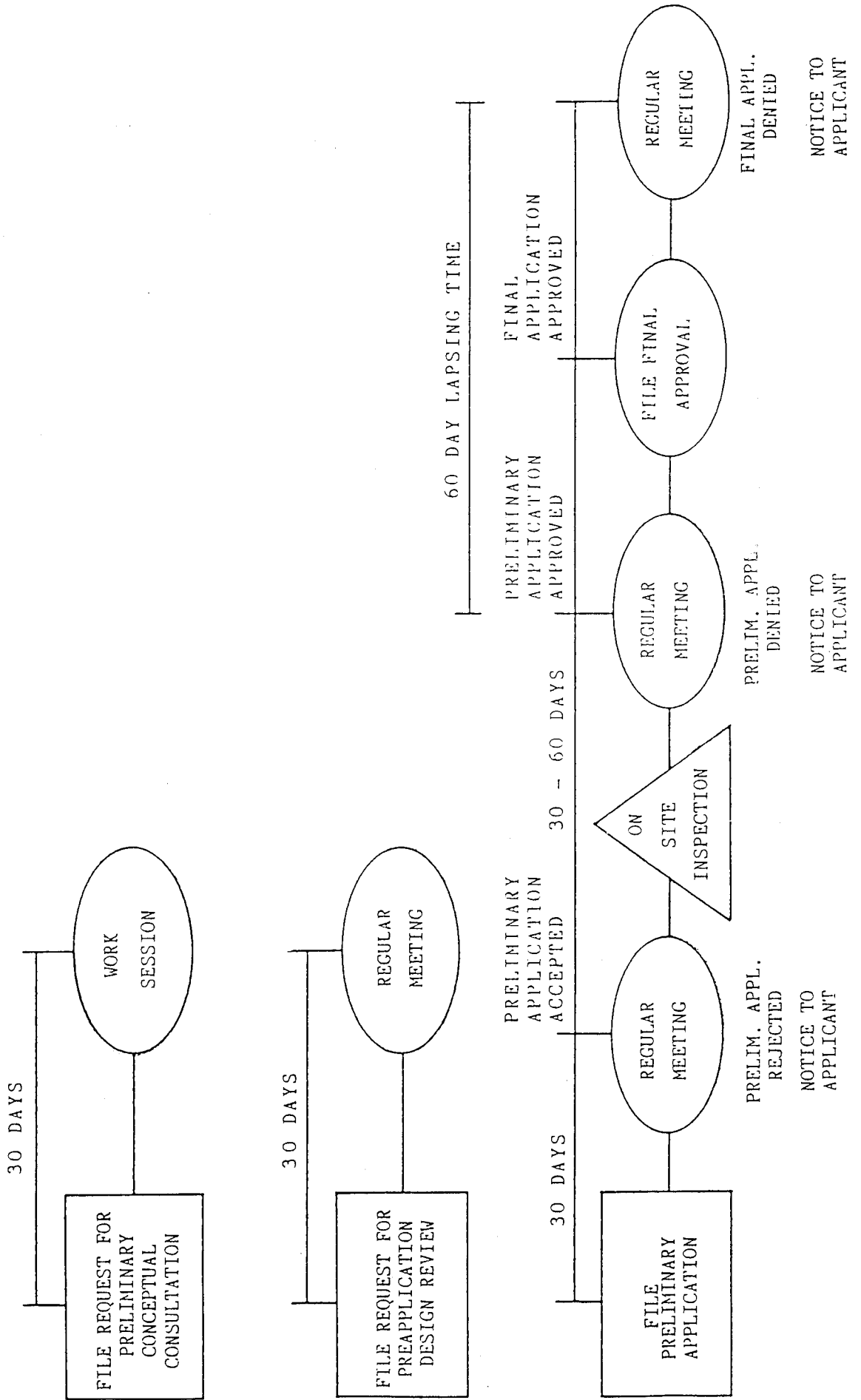
Section 13.00 - Appeals:

Pursuant to RSA 677:15, any persons aggrieved by any decision of the Planning Board concerning a Plat or Subdivision may present to the superior court a petition, duly verified, setting forth that such decision is illegal or unreasonable in whole or in part, specifying the grounds upon which the same is claimed to be illegal or unreasonable. Such petition shall be presented to the court within thirty (30) days after the date upon which the Planning Board voted to approve or disapprove the Subdivision.

Section 14.00 - Appendices

APPENDIX A

PROCEDURES FLOW CHART



APPENDIX B

Typical Sections for Roads

General Notes

Arterial (Class A) Street

Collector (Class B) Street

Local Industrial (Class C) Street

Local (Class C) Street - Through "fill" area

Local (Class C) Street - Through "cut" area

Typical Temporary Turnaround

Typical Permanent Turnaround - "tear drop" design

Typical Permanent Turnaround - "lolly pop" design

Typical Permanent Turnaround - reversed "P" design

APPENDIX B; TYPICAL SECTIONS FOR ROADS

GENERAL NOTES

A. Surface Treatment

Hot bituminous concrete pavement - 3 inches minimum (4 inches for Arterial, Collector, and Industrial Streets)

NH Standards for Road and Bridge Construction

1) Base Course - 2 inches (after compaction) Type "B" (2 ½ inches for Arterial, Collector, and Industrial Streets)

2) Wearing Course - 1 inches (after compaction) Type "E" (1 ½ inches for Arterial, Collector, and Industrial Streets)

3) Paved Shoulders on Arterial, Collector, and Industrial Streets:

Base Course - 2 ½ inches (after compaction) Type "B"

Wearing Course - 1 inch (after compaction) Type "E"

B. In Fill Areas

Original ground to be "stripped and grubbed" and properly shaped

All non-acceptable materials ie. stumps, branches, leaves, roots, muck, clay, etc., shall be removed prior to placing fill or structural section (gravel) layers

A minimum of twelve inches (12") below the bottom of the bank run gravel grade shall be compacted sand meeting the requirements of the a NHDOT Standard Specification 304.1. A geotextile fabric may be substituted for the 12 inch sand layer in accordance with section 7.01 A.

In "Cut" Areas

Subgrade to be shaped and graded prior to the placing of gravel

A minimum of twelve inches (12") below the bottom of the bank run gravel grade shall be compacted sand meeting the requirements of the a NHDOT Standard Specification 304.1. A geotextile fabric may be substituted for the 12 inch sand layer in accordance with section 7.01 A.

- C.
- 1) Superelevate roadways on curves, as directed. Maximum superelevation rate shall be 6%.
 - 2) Ditches or gutters shall be paved where required
 - 3) All drainage pipes to have minimum 2 feet of cover. Pipes constructed under the traveled way shall have a minimum cover of 4 feet, unless otherwise authorized.

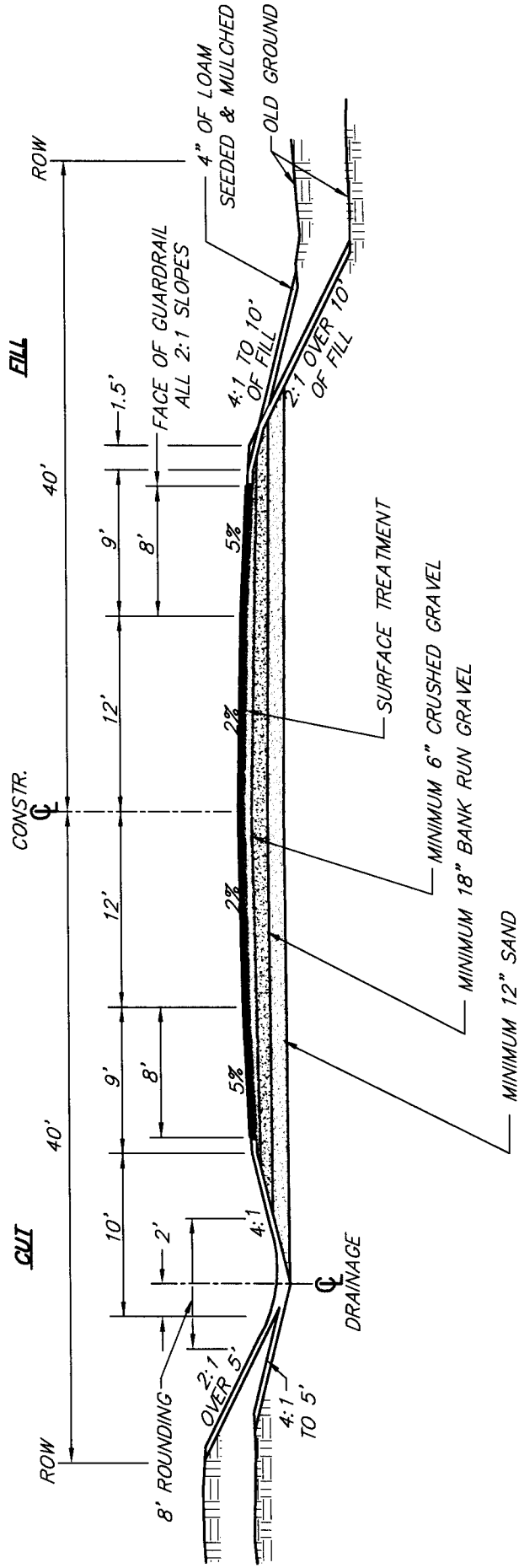
- 4) All drainage to be constructed as shown on plans or as directed by the

Engineer

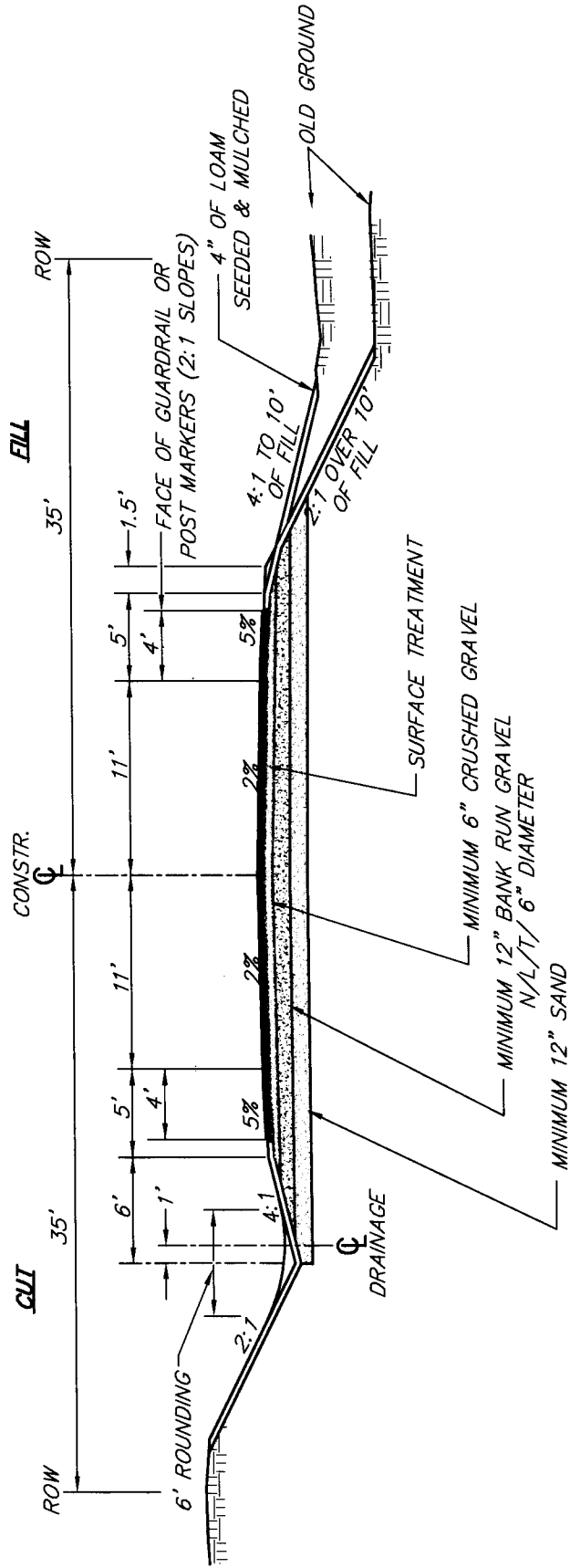
D. Where required by the Town Engineer or Road Agent, the ditches shall be lined in the following manners:

- 1) "Hot top" at a depth of 2 inches after compaction (minimum)
- 2) Stones - NH Standard Class "C" placed so that the pattern is "stone to stone" in a neat and controlled manner

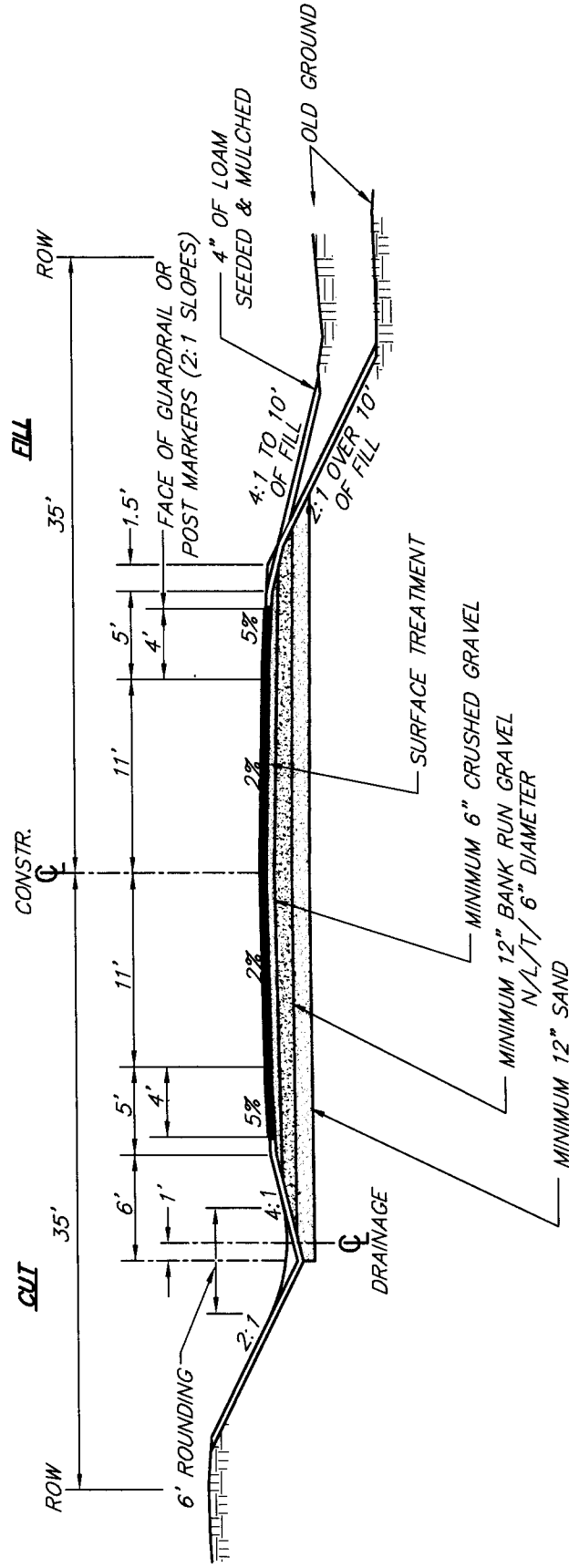
TYPICAL SECTION OF IMPROVEMENT ARTERIAL (CLASS A) STREET



TYPICAL SECTION OF IMPROVEMENT COLLECTOR (CLASS B) STREET

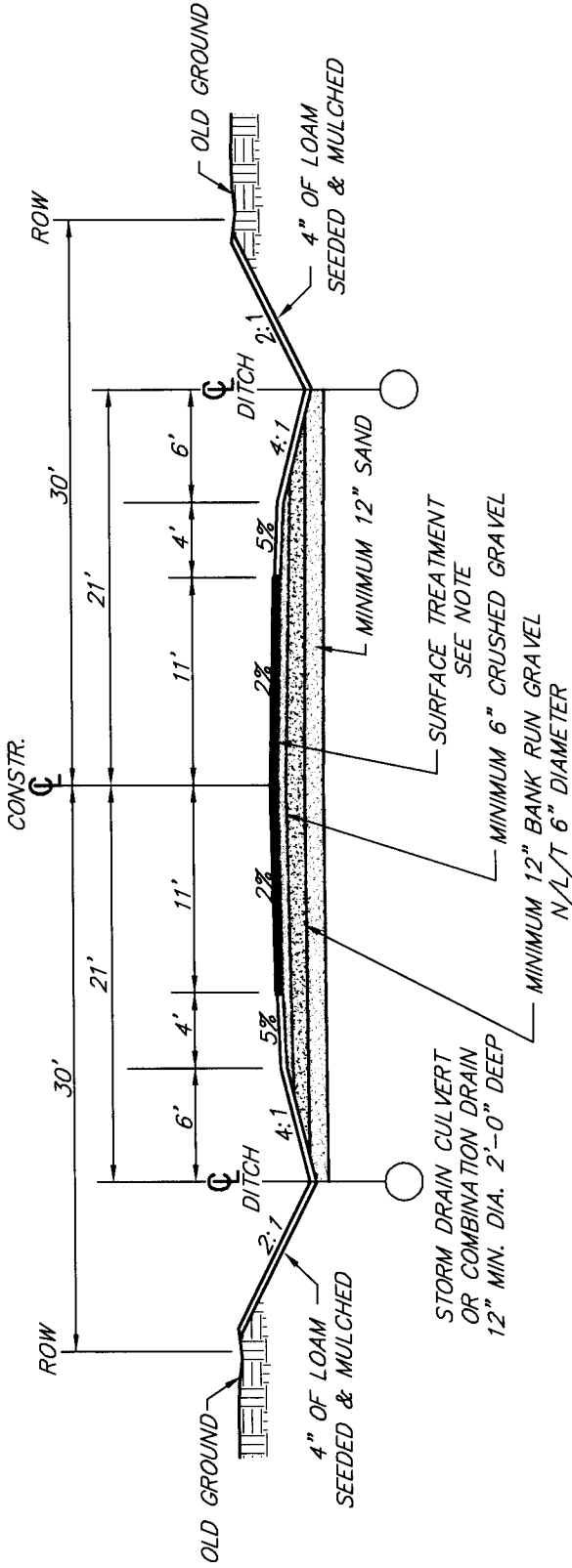


TYPICAL SECTION OF IMPROVEMENT INDUSTRIAL (CLASS C) STREET*

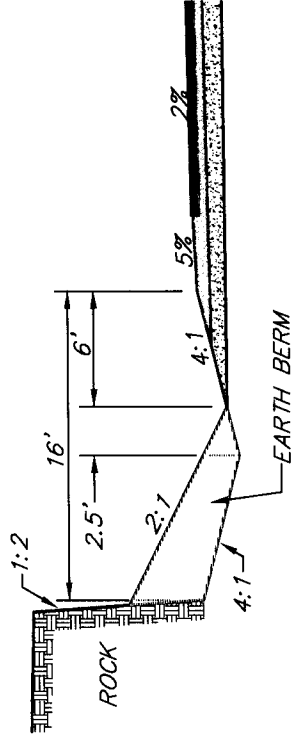


•EXISTING AND NEW STREETS IN THE I-1, I-2 AND BD DISTRICTS

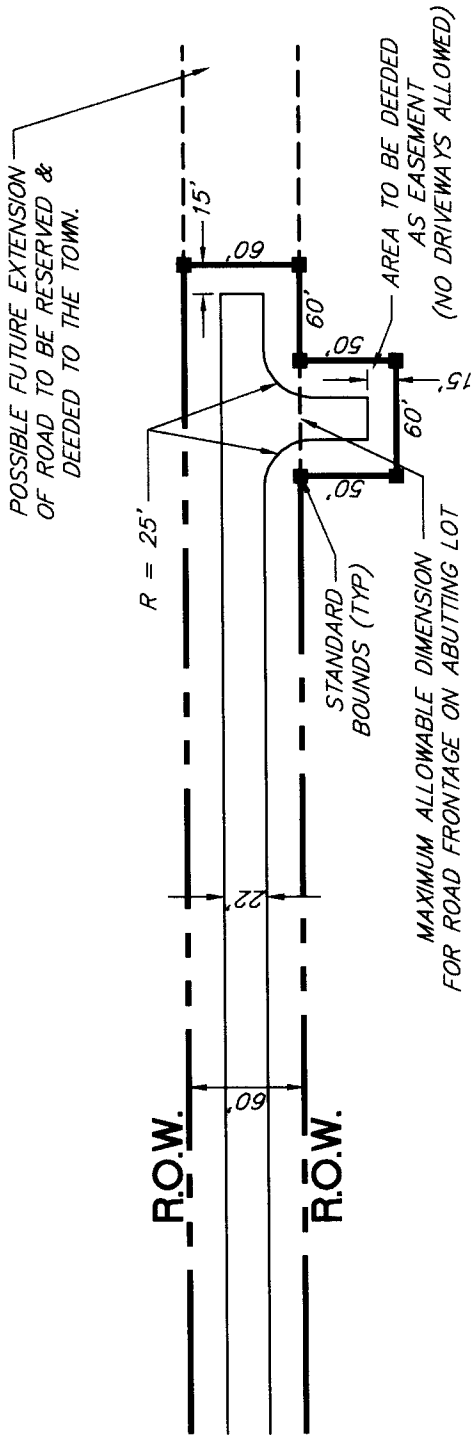
TYPICAL SECTION OF IMPROVEMENT LOCAL (CLASS C) ROAD THROUGH "CUT" AREA



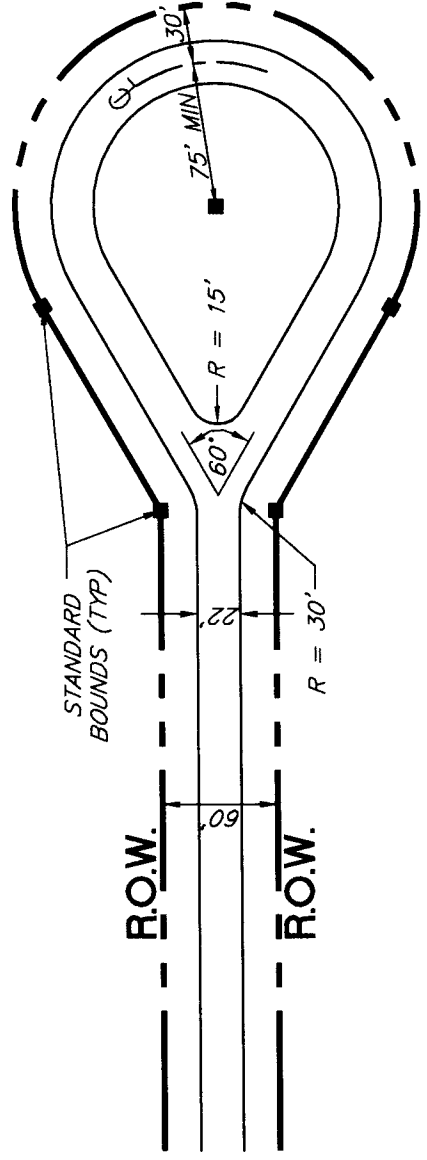
ROCK CUT TYPICAL



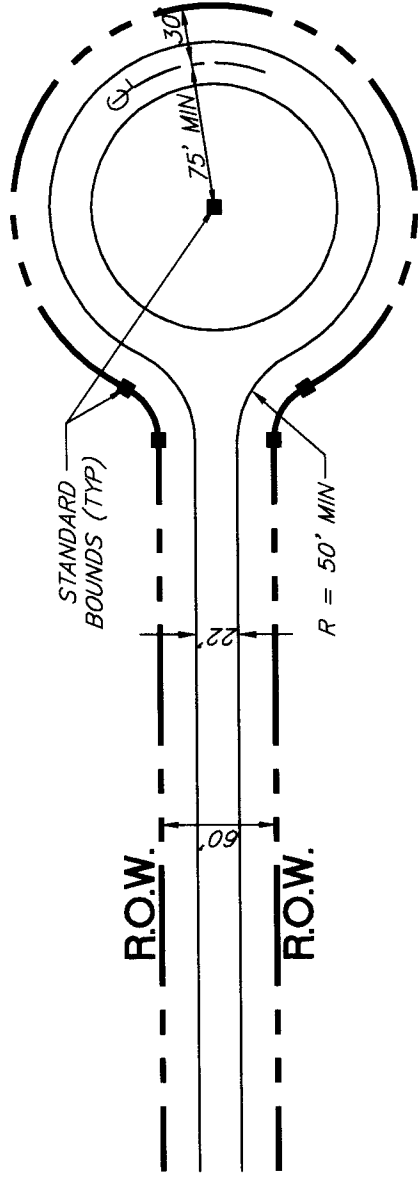
TYPICAL TEMPORARY TURNAROUND



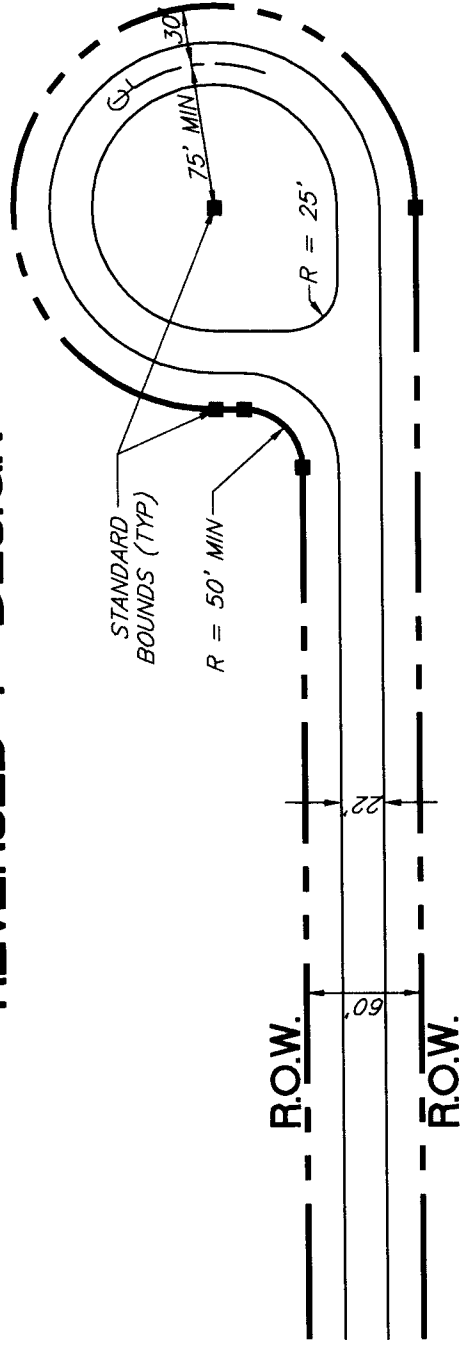
TYPICAL PERMANENT TURNAROUND "TEAR DROP" DESIGN



TYPICAL PERMANENT TURNAROUND "LOLLY-POP" DESIGN



TYPICAL PERMANENT TURNAROUND REVERSED "P" DESIGN



APPENDIX C; RECORD DRAWING (AS-BUILT) PLAN REQUIREMENTS

Record Drawings (As-Built Plans) shall meet the following requirements:

1. Sheet size shall be 22 inches x 34 inches.
2. Plan scale shall not exceed 1 inch = 50 feet. Profile horizontal scale shall match plan scale with a horizontal to vertical scale ratio of 5:1.
3. Proposed elevations for road centerline at fifty foot stations shall be shown on the profile. As-built elevations shall appear in parentheses next to the proposed elevations. As-built vertical curve information shall appear on the profile.
4. Horizontal alignment of the street centerline with tie in to intersecting streets, edges of pavement, width of shoulders, sidewalks, shoulder breaks, centerline of ditches and bottom and top of slopes (all with spot elevations), shall be shown on the plan.
5. The location of the right of way and all monuments delineating the right of way shall be shown on the plan. The location of all utility, slope, drainage and sight distance easements shall appear on the plan.
6. The location of fire cisterns including exposed fill and vent pipes, bollards and turnout areas shall appear on the plan.
7. All storm and sanitary sewer structures and piping shall appear on the plan and profile. As-built elevations shall appear in parentheses next to the proposed elevations for pipe inverts, structure rims and pipe outlets at headwalls and ditch lines. Indicate size and type of material for all piping and structures.
8. The location of water mains, water services, bends, valves, hydrants, and blow offs.
9. The location of all water and sewer service laterals shall be shown to the limit of the street right of way. Indicate the size and type of material.
10. The location of surface runoff retention/detention ponds, water quality swales, water quality facilities, erosion stone, etc. shall be shown on the plan. Elevation information in the form of spot elevations and/or contours indicating the as-built grading shall appear on the plan.
11. A statement that sight distance requirements at all affected intersections have been determined post construction, meet the Town requirements for sight distance and have been observed in the field by a Town representative or the Town's Consulting Engineer.
12. Location of all visible roadway components including but not limited to utility poles, guardrail, curbing, drive aprons and drive culverts, lighting and landscaping.
13. Location of all private utilities such as gas, electric, telephone and cable conduit, transformer pads, junction boxes and services stubs.
14. Plans shall be submitted in electronic form tied to state plane coordinates. A minimum of two points with state plane coordinates, located within the project, shall be shown on the plan.
15. Plans shall be sealed and signed by a professional surveyor licensed by the State of NH.

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