

Chapter 38
TOWN OF SKOWHEGAN

ROAD AND ENTRANCE

DESIGN STANDARDS ORDINANCE

Adopted February 14, 2012, Special Town Meeting, Article #3
Amended June 10,2013

ARTICLE ONE: ADMINISTRATION

1.1 TITLE

This ordinance shall be known as the Road and Entrance Design Standards Ordinance of the Town of Skowhegan and will be herein referred as “this ordinance”.

1.2 AUTHORITY

This Ordinance is adopted pursuant to the “home rule” provisions of M.R.S.A. Title 30-A, Section 3001.

1.3 PURPOSE

- A. To promote the public health, safety and general welfare in their use of public ways through establishment of minimum specifications for the design and construction of public and private roads and entrances.
- B. To establish minimum requirements for a road to qualify for Town acceptance.

1.4 APPLICABILITY

- A. This ordinance shall apply to the design and construction of all public and private roads and entrances onto public roads within the Town of Skowhegan.
- B. This ordinance shall not apply to routine maintenance of public or private roads or to improvements to an existing entrance.
- C. This ordinance shall apply to the design and construction of all public roads that are being completely rebuilt.
- D. This ordinance shall not apply to road construction or improvement activities of the state or federal government.

1.5: EFFECTIVE DATE

This Ordinance was adopted by voters of Skowhegan on February 14, 2012 and takes effect upon enactment by the Town Meeting. The enactment of this ordinance automatically repeals the following Town ordinance sections:

Town of Skowhegan Subdivision Standards: Sections 12.1, 12.2, 12.3

Town of Skowhegan Street and Sidewalks: Article II

1.6: COORDINATION WITH ORDINANCES

This ordinance is designed to work in conjunction with applicable State laws and Skowhegan ordinances. Whenever this ordinance conflicts with or is inconsistent with another provision of this ordinance or any other ordinance, regulation or statute, the more restrictive provision shall control.

1.7: VALIDITY AND SEVERABILITY

Should any section or provision of this ordinance be declared by a court to be invalid, such decision shall not invalidate any other provision of this ordinance.

1.8: AMENDMENTS

Amendments to this ordinance shall be enacted by a majority vote of a Town Meeting. The Board of Selectmen shall conduct a public hearing on any proposed amendments prior to the Town Meeting.

1.9: APPLICATION FEE

Applications authorized under this ordinance shall be accompanied by a fee sufficient to cover the costs associated with issuance of the permit. Fees shall be set and may from time to time be amended by the Board of Selectmen, provided that no permit fee will be charged for access permits under section 2.2.1.

1.10 ENFORCEMENT

It shall be the duty of the Code Enforcement Officer (CEO) to enforce the provisions of this ordinance, with technical assistance from the Road Commissioner. If the CEO or his/her designee shall find that any provision of this ordinance is being violated, he/she shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it.

Any person, firm, or corporation being the owner of or having control or use of any premises found to be in violation of any of the provisions of this ordinance, shall be fined in accordance with Title 30-A M.R.S.A. sec. 4452, except that the fine for failure to obtain a permit for access under section 2.2.1 of this ordinance shall be limited to twenty-five (25) dollars. The Board of Selectmen, or their authorized agent, are hereby authorized to enter into administrative consent agreements for the purpose of eliminating violations of this ordinance and recovering fines without court action.

1.11: DEFINITIONS

Access: The point at which a driveway, entrance or public or private road enters the public road system.

Completely Rebuilt: A road is considered “completely rebuilt” if all of the paving and base material is removed and replaced, or if the alignment shifts significantly enough to require placement of a new base.

Development: Any improvement to property which falls within the applicability requirements of the Town of Skowhegan *Site Plan Review Ordinance*.

Driveway (*or* entrance): Vehicular access for undeveloped land, or two (2) or fewer residential properties, or which provides access to a commercial parking lot.

Street: Any vehicular way that serves three (3) or more residential properties or multiple commercial properties. For the purpose of this ordinance, a street shall be classified as one of the following:

Arterial Street: A major thoroughfare, which serves as a major traffic way for travel between and through municipalities. The following Skowhegan roadways shall be considered arterial streets: US Route 2, US Route 201, ME Route 150, and ME Route 104.

Collector Street: A street which has two or more intersections with the public road system and carries at least 200 vehicle trips per day on average.

Commercial Street: Streets servicing industrial or commercial traffic generators.

Minor Street: A street which is not an arterial, collector or commercial street.

Town Way/Public Road: A road which is designed and intended for acceptance as a town way, or is already designated as a town way.

Private Road: A road which is intended to be maintained exclusively by users of the road. Evidence of non-governmental maintenance responsibility shall be in place to qualify a road as “private”.

Sight Distance: The line of sight along a roadway sufficient for the safe operation of the access point. Sight distance shall be measured from a point ten (10) feet behind the curb line or edge of pavement of the road being accessed, with the height of the eye 3.5 feet, to the top of an object on the roadway 4.25 feet above the pavement.

Temporary use of an Access: The use of an access point for a temporary road or driveway, typically for construction or property improvement, which is limited to a period of less than twelve (12) months.

Upgrade/Access Points: The use of an access point for a more intensive use of the property than previously approved or utilized. The term “upgrade” does not include improvement to an existing driveway unless for the purpose of providing for a more intensive use of the property.

Upgrade/Public Ways: An existing public way is upgraded if it is improved for the purpose of accommodating more intensive use, including, but not limited to, the establishment of a residential subdivision or new or expanded commercial development.

ARTICLE TWO: ACCESS TO PUBLIC STREETS

2.1: GENERAL REQUIREMENT

No new or upgraded driveway, entrance, or public or private road, street, or other way shall be permitted to access a public way within the Town of Skowhegan, without a permit as provided below.

2.2: PERMITTING

2.2.1 An access proposed to service an individual property, residence, or business which is not a development subject to review under section 2.2.2 must receive a permit from the Skowhegan Road Commissioner prior to commencement of construction. A permit shall be issued upon determination that the proposed access meets the standards in section 2.3 of this ordinance. A permit shall be issued within five (5) working days of application.

The Road Commissioner shall develop forms and procedures for receiving and acting on applications for access permits, and for inspections to determine that construction has been completed in compliance with the permit.

2.2.2 An access proposed to service a development subject to approval under the Town of Skowhegan Subdivision Ordinance or Site Review Ordinance is presumed to be permitted upon approval of the application for development. Driveways from individual lots within a subdivision, if not shown as part of an overall development design, must receive permits under section 2.2.1, if accessing a public road.

2.2.3 An access required to be permitted by the Maine Department of Transportation, under its Access Management Rules, shall not be required to obtain a separate permit under this ordinance. This provision shall not be interpreted to relieve the developer of the obligation to obtain any other federal, state, or municipal permits required.

2.3 ACCESS DESIGN AND CONSTRUCTION STANDARDS

2.3.1 Standards for all Access Points:

2.3.1.1 Unless the access is constructed and intended for temporary use, adequate sight distance shall be provided. An access point shall be placed such that there is a minimum of two hundred fifty (250) feet of clear sight distance on either side for a street with a speed limit of 25 MPH or less, and three hundred fifty (350) feet on all other streets. The Road Commissioner shall waive this requirement if adequate sight distance is not available anywhere along the frontage, but shall require placement of the access where the greatest possible sight distance can be obtained.

2.3.1.2 Culverts shall be required where the Road Commissioner determines that the proposed access will interfere with roadside drainage patterns. If culverts are

required, they will be purchased and delivered to site at owner's expense. Culverts shall be installed and maintained by the Town where they are within the right of way. The Road Commissioner will specify the size (diameter, length and type) of the culvert. Culvert materials will meet the specification of section 706 (for non-metallic pipe) or section 707 (metallic pipe) of *Maine DOT Standard Specifications for Highways and Bridges (2002)*

Culverts and other drainage features within the public right-of-way shall be in accordance with Maine Best Management Practices and shall be approved by the Road Commissioner or his agent.

2.3.1.3 Driveways shall be constructed in such a manner as to prevent deposition of water, snow, gravel, or other debris onto the public way.

2.3.1.4 No more than two (2) access points for the same property shall be allowed per one hundred (100) feet of frontage on a street.

2.3.1.5 Drainage facilities shall be relocated only after approval of the Road Commissioner and according to the specifications of this ordinance. The applicant shall bear all expenses.

2.3.1.6 The grade of existing sidewalks may be altered when such change will not adversely affect or damage adjoining walks and property, and then only as approved by the Road Commissioner.

2.3.2 Standards for Residential and Commercial Access Points

2.3.2.1 Where property fronts on collector/commercial roads, no more than two access points shall be permitted, unless the frontage exceeds one thousand (1,000) feet in length. Additional access points may be permitted onto adjoining roads.

2.3.2.2 Driveway entrances shall be no less than twenty (20) feet in width at the curb line or edge of shoulder. The driveway itself shall be no less than twelve feet (12') nor more than forty-two (42) feet in width, measured before it flares into the road.

2.3.2.3 The edge of a driveway at the point of access shall be well-defined. Where the existing road is curbed, curbing shall continue into the driveway for a minimum of five (5) feet, except as needed to continue sidewalks. In other cases, the edge will be defined by a sloped shoulder or vegetated verge.

2.3.2.4 Access points shall be surfaced with a suitable all-weather surface resistant to erosion for a distance of at least fifty (50) feet from the public road. Paving, if provided, shall be firmly joined and blended with existing street pavement.

2.3.2.5 Access points and commercial driveways subject to the *Town of Skowhegan Site Plan Review Ordinance* are required to meet the additional design standards in that ordinance.

2.3.2.6 No driveway shall be built within fifty (50) feet of the intersection of two (2) streets as measured along the near edge of pavement of the streets, except upon approval by the Road Commissioner. The Road Commissioner may consult with the Town Manager and Board of Selectmen prior to granting approval.

2.3.2.7 Safety islands of not less than ten (10) feet in length shall be required where two (2) driveways are provided for the same property on the same street.

ARTICLE THREE: CONSTRUCTION OF ROADS AND STREETS

3.1 GENERAL REQUIREMENT:

No public way shall be established or upgraded within the Town of Skowhegan except in conformance with the provisions of this Article. Public ways may not serve new development that would exceed the capacity of the road until and unless upgraded to the standards of this ordinance, provided that the Town of Skowhegan shall not be required under this ordinance to upgrade roads to accommodate private development.

3.2 PERMITTING AND ACCEPTANCE:

3.2.1 Permitting Requirements and Procedures

The establishment or upgrade of a public way shall be approved by the planning board. If the road is part of a subdivision, subdivision approval will serve as approval for the road. If the road is not associated with a subdivision, the planning board shall review the proposal on its own merits.

3.2.1.1 An applicant for a permit shall submit road construction plans to the planning board prior to commencement of construction or improvement. If the improvement is, or is intended as, a town way, drawings shall be prepared by a professional engineer licensed to practice in the State of Maine.

The Plan shall consist of one or more maps or drawings drawn to a scale of not more than one hundred feet (100') to the inch. Plans shall be no larger than 24 by 36 inches in size. Plans and attachments shall include the following information:

- Proposed name of street and the municipality(ies) in which it will be located.
- For roads proposed to become public, an actual field survey of the boundary lines of the right-of-way, giving complete descriptive data by bearings and distances, made and certified by a licensed land surveyor. The right-of-way boundaries shall be located on the ground and marked by monuments. The

survey shall indicate the type of monument set at each corner.

- Each plan page shall show the date the Plan was prepared, magnetic and true north arrow, graphic map scale, and names and addresses of the record owner, subdivider and individual or company who prepared the Plan.
- Construction plans shall include a plan view, profile view and typical cross section. In addition to street dimensions, plans shall show the location and size of existing and proposed sewer lines, water mains, manholes, fire hydrants, utilities, culverts and drainage ways on or adjacent to the right-of-way.
- The Plan shall contain sufficient data to allow the location, bearing and length of every street line, curve, and boundary line to be readily determined and be reproduced upon the ground.
- Plans shall include a Soil Erosion and Sedimentation Control Plan, prepared in accordance with the standards contained in *Maine Erosion and Sediment Control BMPs* (Maine DEP, 2003 or as revised).
- For roads proposed to become public, plans shall include a Stormwater Management Plan prepared by a Registered Professional Engineer, in accordance with the standards contained in *Stormwater Management for Maine*, (Maine DEP, 2006 or as revised).
- For roads proposed to become public, a properly executed Performance Guarantee, as specified by the Board of Selectmen.

3.2.1.2 The planning board will determine whether an application has all the required elements prior to undergoing a review of the application on its merits. Once that determination has been made, the board will approve the application if it meets the standards of this ordinance. The board shall act to approve or deny the application within thirty-five (35) days of their determination that the application is complete.

3.2.1.3 No changes, erasures, modification, or revisions shall be made in any approved plan unless the revised plan is first submitted and the planning board finds that the revised plan still meets the standards of this ordinance.

3.2.1.4 The approval of a plan shall not constitute or be evidence of any acceptance by the Town of any street.

3.2.1.5 Failure to complete construction of a street within five (5) years of the date of approval shall require re-examination of the plan by the board. This re-examination will be subject to the Standards currently in effect and the board may impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances or requirements which may have occurred since the prior approval.

3.2.2 Acceptance as a Town Way

3.2.2.1 The Board of Selectmen, with the assistance of the Road Commissioner and planning board, shall review all proposals for road acceptance and shall make a recommendation to the Town Meeting.

3.2.2.2 The Town shall accept roads only by a vote of the Town Meeting.

3.2.2.3 A road shall not be eligible for public acceptance unless it complies with all of the requirements of section 3.4 of this Ordinance.

3.2.2.4 The Board of Selectmen shall determine that a road is eligible for public acceptance only when it conforms to the following:

- a) The road has a finished surface according to the specifications herein;
- b) The road has been designed and constructed according to plans developed in accordance with the standards of section 3.4;
- c) The road has been inspected by a professional engineer and certified to have been constructed according to the requirements of this Ordinance; and
- d) The road developer has obtained all applicable permits associated with the construction of the road and connection with other roads, and is in compliance with those permits.

3.2.2.5 If the Board of Selectmen determines that the road conforms to these criteria, they shall hold a public hearing on the proposal. The Board of Selectmen may vote to recommend to the Town that the road be considered for public acceptance.

3.2.2.6 All costs associated with design, construction and inspection of a proposed town way shall be borne by the person or persons requesting the acceptance.

3.3 PRIVATE ROADS

A private road is intended to be maintained exclusively by the users of the road. Under these conditions, a private road need not meet the same design standards as a public road. The standards listed in section 3.3.1 are designed exclusively to ensure that private roads are safe and accessible by emergency service vehicles.

3.3.1 Private roads shall meet the following specifications in design and construction:

3.3.1.1 Right of Way must be at least forty (40) feet in width, unless the land adjoining the road consists of lots within a mobile home park, in which case the right-of-way may be reduced to twenty-three (23) feet in width. The right-of-way shall be wider if required for the installation or maintenance of drainage structures or side slopes.

- 3.3.1.2 The road must be constructed with a gravel base consisting of a sub-base course no less than twelve (12) inches in thickness and a surface course of no less than three (3) inches. The gravel must meet the specifications in section 3.4.7 below.
- 3.3.1.3 Private roads are not required to be paved with a bituminous surface. However, if a paved surface is provided, paving shall conform to the specifications in section 3.4.7 below for a minor road.
- 3.3.1.4 The width of the travelled way (surface course) shall be no less than eighteen (18) feet.
- 3.3.1.5 The road shall be aligned so as to be accessible to emergency vehicles. The minimum radius for a horizontal curve shall be one hundred fifty (150) feet. The maximum grade shall be eight (8) percent. Changes in grade shall be connected by vertical curves gradual enough to prevent scraping the undercarriage of fire equipment.
- 3.3.1.6 Dead-end Roads shall provide a permanent, finished turnaround installed perpendicular to the road as near to its terminus as practicable. The turnaround shall be constructed to the same specifications as the roadway, and shall be no less than 35 feet in length (perpendicular leg).
- 3.3.1.7 Intersections with public roads must provide adequate sight distance in each direction. The sight distance shall be a minimum of ten (10) feet for every mile-per-hour of speed limit on the road being intersected. Additional standards may apply if the intersection is with an arterial road. Corners shall be cleared of all growth and sight obstructions, including ground excavation where necessary, to achieve the required visibility.

3.3.2 Drainage and Erosion Control

The developer of a private road shall make adequate provision for the control of erosion. The publication *Maine Erosion and Sediment Control BMP's* (DEP, 2003 or most recent edition) shall be used as a guide. The location and design of culverts shall be approved by the Road Commissioner prior to installation.

3.3.3 Maintenance Responsibility

- 3.3.3.1 Private roads are barred by law from receiving public expenditures for either summer or winter maintenance or improvement, and may not be accepted as town ways unless and until they comply with the standards in section 3.4.
- 3.3.3.2 Owners and purchasers of property accessing the private road shall be informed in writing of their ownership and maintenance responsibility for the road. If included as part of a subdivision, the subdivision plan shall contain the following note: “[Name of Roads] in this Subdivision shall remain private roads to be maintained

by the developer or the lot owners and shall not be accepted or maintained by the Town unless improved to meet public road standards.”

3.3.3.3 Prior to establishment of a private road, the developer shall demonstrate with reasonable certainty that funding for continued maintenance of the road has been provided for, either through a self-funding mechanism or through an organization with the authority to assess users of the road with maintenance costs.

3.4 PUBLIC ROADS (TOWN WAYS)

A road intended for acceptance as a town way shall be constructed in accordance with the standards in this section. Roads designed as collectors or commercial roads must meet the standards for collectors.

The installation of capital improvements to upgrade public roads (town ways) shall comply with these standards unless local conditions make compliance impractical. Periodic maintenance practices, such as rehabilitation of an existing paved road, restoring ditches, or replacement of utilities or drainage structures are not to be considered as capital improvements for the purpose of this section.

3.4.1 General Design Requirements

The following minimum design standards apply according to classification.

| Description | TYPE OF STREET | | | |
|---------------------------------|----------------|-----------|----------|------------|
| | Arterial | Collector | Minor | Commercial |
| Minimum Right-of-way width | 80' | 60' | 50' | 60' |
| Minimum Pavement width | 44' | 24' | 20' | 30' |
| Sidewalk width (where required) | 8' | 5' | 5' | 8' |
| Minimum grade | .5% | .5% | .5% | .5% |
| Maximum grade * | 5% | 6% | 8% | 5% |
| Minimum centerline radius | 500' | 230' | 150' | 400' |
| Minimum tangent between curves | 200' | 100' | 50' | 200' |
| Roadway crown | 1/4"/Ft. | 1/4"/Ft. | 1/4"/Ft. | 1/4"/Ft. |
| shoulders (each side) | 5' | 3' | 3' | 9' |

* Maximum grade may be exceeded for a length of 100 feet or less.

The center line of the roadway shall be the center line of the right-of-way.

3.4.2 Dead Ends

Dead-End Streets (Streets with a single entrance to the public road system) shall be constructed to provide a means to reverse direction at the terminus.

3.4.2.1 Circular style turnarounds shall have a right-of-way radius no less than sixty (60) feet, and a pavement radius of no less than fifty (50) feet. The center of the circle may be left unpaved for a radius of no more than thirty-two (32) feet. The unpaved

area shall be vegetated to control erosion.

3.4.2.2 A “T” or hammer head style turnaround may be provided for minor streets. The turnaround shall be centered within a fifty (50) foot right-of-way and shall be designed and constructed according to the same specifications as the street and no less than forty (40) feet in length (perpendicular leg).

3.4.2.3 Within a subdivision, the planning board may require that an easement for extension of the right-of-way be shown on the plan, to provide a connection to property where future subdivision is possible, or for the purpose of providing for pedestrian access or utility placements

3.4.3 Grades and Sight Distances:

3.4.3.1 Grades of all streets shall conform in general to the terrain, so that cut and fill are minimized while maintaining the grade standards above.

3.4.3.2 All changes in grade shall be connected by vertical curves to provide the following minimum stopping distances based on the street design speed:

| | | | | |
|------------------------------|-----------|-----------|-----------|-----------|
| Design speed (mph) | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> |
| Stopping sight distance (ft) | 125 | 150 | 200 | 250 |

Stopping sight distance on vertical curves shall be calculated with a height of eye at 3.5 feet and the height of object at 0.5 feet.

3.4.3.3 Intersection sight distance shall be a minimum of ten (10) feet for every mile-per-hour of speed limit in each direction on the road being intersected. Additional standards may apply if the intersection is with an arterial road. Corners shall be cleared of all growth and sight obstructions, including ground excavation where necessary, to achieve the required visibility.

3.4.4 Curbs:

Curbs and gutters shall be installed within the urban compact area, or within any areas designated in the Capital Improvement Plan or Comprehensive Plan as growth areas. Where curbs are to be installed they shall meet the following minimum standards:

1. Granite Curbs shall be installed on a thoroughly compacted base of six inches of gravel.
2. Bituminous Curbs shall be installed on the base course of pavement. The specified road width shall be measured between the curbs.
3. Concrete curbs shall be placed using the same specifications as for concrete sidewalks, section 3.4.4 (4) above.
4. All curbing must elevate at least seven (7) inches above the road surface.

3.4.5 Street Construction Specifications:

3.4.5.1 Material depths (after compaction):

| Description | TYPE OF STREET | | | |
|--|----------------|-----------|-------|------------|
| | Arterial | Collector | Minor | Commercial |
| Aggregate Sub-base course (Max. Sized stone 4") | 24" | 24" | 24" | 24" |
| Crushed Aggregate Base course | 4" | 3" | 3" | 4" |
| Hot Bituminous Pavement | | | | |
| Surface Course | 2" | 1 ½" | 1 ½" | 2" |
| Base Course | 4" | 2 ½" | 2 ½" | 4" |
| Total Thickness: | 6" | 4" | 4" | 6" |

3.4.5.2 Preparation:

Before any clearing has started on the right-of-way, the center line and side lines of the new road shall be staked or flagged at fifty (50') foot intervals.

Before grading is started, the entire right-of-way shall be cleared of all stumps, roots, brush, and other objectionable material. All ledge, large boulders and trees stumps shall be removed from the right-of-way.

All organic materials shall be removed to a depth of two (2) feet below the subgrade of the road. Rocks and boulders shall also be removed to a depth of two (2) feet below the subgrade. On soils which have identified as not suitable for roads, the subsoil shall be removed from the street site to a depth of two (2) feet below the subgrade and replaced with material meeting the specifications for gravel aggregate sub-base.

Cut side slopes shall be no steeper than a slope of three (3') feet horizontal to one (1') foot vertical, and shall be raked, limited, fertilized and seeded according to the specifications of the Erosion and Sedimentation Control Plan. Where a cut results in exposed ledge, a side slope no steeper than two (2') feet vertical to one (1') foot horizontal is permitted.

All underground utilities shall be installed prior to paving to avoid cuts in the pavement. Building sewers and water service connections shall be installed to the edge of the right-of-way prior to paving.

3.4.5.3 Base Material:

The construction requirements for aggregate base and sub-base course shall be as specified in Subsections 304.03 through 304.0 of the most current edition of the M.D.O.T. *Standard Specifications Highway and Bridges* manual.

The aggregate sub-base course shall be sand or gravel of hard durable particles free from vegetative matter, lumps or balls of clay and other deleterious substances, and shall contain no particles of rock exceeding four (4) inches in any dimension. The gradation of the part that passes a three (3) inch square mesh sieve shall meet the following requirements:

| <u>Sieve Designation</u> | <u>Percentage by weight passing</u> |
|--------------------------|-------------------------------------|
| ½ inch | 20-70% |
| No. 40 | 0-30% |
| No. 200 | 0- 7% |

The aggregate base course shall be sand or gravel of hard durable particles free from vegetative matter, lumps or balls of clay and other deleterious substances and shall contain no particles of rock exceeding four (4") inches in any dimension. The gradation of the part that passes a three (3") inch square mesh sieve shall meet the following requirements:

| <u>Sieve Designation</u> | <u>Percentage by weight passing</u> |
|--------------------------|-------------------------------------|
| ½ inch | 45-70% |
| ¼ inch | 30-55% |
| No. 40 | 0-20% |
| No. 200 | 0- 5% |

3.4.5.4 Pavements:

The base layer of pavement shall be mixed and placed as per the most current edition of the MDOT *Standard Specifications Highway and Bridges*, section 401 and section 703.9. The surface layer of pavement shall be mixed and placed as per section 401 and section 701.4.

Construction requirements shall be as specified in Subsections 401.07 through 401.20, most current edition of the M.D.O.T. *Standard Specifications Highway and Bridges* manual.

3.4.6 Entrance Design for a Road entering onto Arterial and Collector Streets:

The standards of this section shall apply to all new streets proposed to enter an arterial or collector street within the Town. If an existing street is to be improved, it shall meet the standards of this section to the extent practicable.

New entrances outside of the Urban Compact area which are required to obtain an entrance permit from the Maine Department of Transportation may present a valid MDOT permit as evidence that the proposed street will meet the standards of this section.

3.4.6.1 Sight Distances: The intersection shall be designed in profile and grading, and located to provide the required sight distance measured in each direction. The required sight distances are listed below for various posted speed limits:

- a. Two Lane Road: A sight distance of ten (10') feet for each mile per hour of posted speed limit shall be maintained or provided.
- b. Three or Four Lane Road:

| Speed Limit (MPH) | Sight Distance | |
|-------------------|----------------|-------------|
| | Left (Ft) | Right (Ft.) |
| 25/30 | 300 | 300 |
| 35/40 | 380 | 440 |
| 45 | 425 | 495 |
| 50 | 620 | 700 |

3.4.6.2 Minor Streets. Where the street proposed to enter the street is a minor street, the standards in this section shall apply:

Skew Angle: Minor streets shall intersect the road at an angle as nearly ninety (90) degrees as site conditions permit, but in no case less than sixty (60) degrees.

Curb Radius: The curb radius shall be between five (5) feet and fifteen (15) feet, with a preferred radius of ten (10) feet.

Curb cut Width: Curb-cut width shall be between twenty-two (22) feet and forty-six (46) feet, with a preferred width of thirty-six (36) feet.

Intersection Spacing: The point of intersection shall be no closer than one hundred (100) feet from the point of intersection with another street, and no closer than two hundred fifty (250) feet from an intersection which is controlled by a traffic signal. If a street or commercial entrance intersects from the opposite side of the road, the new street will be located as nearly as possible directly across from it.

3.4.6.3 Collector and Commercial Streets.

Where the street proposed to enter the street is a collector or commercial street, the standards in this section shall apply.

Skew Angle: The street shall intersect the arterial at an angle as nearly ninety (90) degrees as site conditions permit, but in no case less than sixty (60) degrees.

Curb Radius: Curb radii shall be between twenty- five (25') feet and forty (40') feet, with a preferred radii of thirty (30') feet.

Curb-Cut Width: The total curb-cut width shall be between seventy-four (74') feet and one hundred (100') feet with a preferred width of eighty-six (86') feet.

Intersection Spacing: The point of intersection shall be no closer than one hundred fifty (150) feet from the point of intersection with another street or commercial access point, and no closer than four hundred (400) feet from an intersection which is controlled by a traffic signal. If a street or commercial entrance intersects from the opposite side of the road, the new street will be located as nearly as possible directly across from it.

Appropriate traffic control signage shall be erected at the intersection of the access and the street, and on medians and channelization islands.

3.4.6.4 Construction Materials/Paving:

All streets entering a curbed street shall be curbed with materials matching the curbing of the street being entered. Sloped curbing is required around all raised channelization island or medians.

All streets shall be paved with bituminous concrete pavement within the right-of-way of the street being entered. All commercial streets regardless of access volume shall be paved with bituminous concrete pavement within thirty (30) feet of the right-of-way of the street being entered.

3.4.7 Storm Water Management

Adequate provisions shall be made for disposal of all storm water generated within the right-of-way and any drained ground water through a management system of swales, culverts, underdrain and storm drains. The storm water management system shall be designed to construct storm water flows to existing water courses or storm water drains.

Where a right-of-way is traversed by a stream, river or surface water drainage, there shall be provided easements or drainage right-of-way with swales, culverts, catch basins, or other means of channeling surface water. This storm water management system shall be designed by a Registered Professional Engineer.

All components of the storm water management system shall be designed to limit peak discharge to pre-development levels provided every storm between the two (2) year and twenty-five (25) year, twenty-four (24) hour duration, frequencies, based on rainfall data for Portland, Maine.

3.4.7.1 Drainage easements for existing water-courses or proposed drainage ways shall be provided at least thirty (30') feet wide, conforming substantially with the lines of existing natural drainage.

3.4.7.2 The minimum pipe size for any storm drainage pipe shall be twelve (12) inches. Maximum trench width at the pipe crown shall be the outside diameter of the pipe plus two (2) feet. Pipe shall be bedded in fine granular materials, containing no

stones larger than three (3) inches, lumps of clay, or organic matter, reaching a minimum of six (6) inches below the bottom of the pipe extending to six (6) inches above the top.

- 3.4.7.3 The storm water management system shall be designed to accommodate upstream drainage, taking into account existing conditions and approved or planned developments not yet built and shall include a surplus design capacity factor of twenty-five (25) percent for potential increases in upstream runoff.
- 3.4.7.4 In curbed sections, the Road commissioner will designate location of catch basins.
- 3.4.7.5 Drain inlet alignment shall be straight in both horizontal and vertical alignment unless specific approval of curvilinear drain is obtained in writing from the Road Commissioner.
- 3.4.7.6 Outlets shall be stabilized against soil erosion by stone riprap or other suitable materials to reduce storm water velocity. Wherever the storm drainage system is not within the right-of-way of a public street, perpetual easements shall be provided to the Town allowing maintenance and improvement of the system.
- 3.4.7.7 Where soils require a subsurface drainage system, the drains shall be installed and maintained separately from the storm water drainage system.
- 3.4.7.8 Storm Drainage Construction Specifications:
 - 1. Reinforced Concrete Pipe: Reinforced Concrete Pipe shall meet the requirements of ASIM Designation C-76 (AASHTO M170). Pipe classes shall be required to meet the soil and traffic loads with a safety factor of 1.2 on the .01 inch crack strength with Class B bedding. Joints shall be of the rubber gasket type meeting ASIM Designation C443-70, or of an approved preformed plastic jointing material such as "Ramnek". Perforated Concrete Pipe shall conform to the requirements of AASHTO M175 for the appropriate diameters.
 - 2. Corrugated Metal Pipe: Corrugated Metal Pipe shall meet AASHTO M196 for aluminum alloy pipe. Pipe gauge shall be as required to meet the soil and traffic loads with a deflection of not more than five (5%) percent.
 - 3. ABS Pipe: ABS (Acrylonitrile-butadiene-styrene) composite pipe and fittings shall conform to the requirements of AASHTO M264 and AASHTO M265. Perforated pipe shall conform to the requirements of AASHTO M36, Type 252.
 - 4. Corrugated Plastic Pipe: Corrugated Plastic Pipe shall conform to the requirements of AASHTO M252.
 - 5. Manholes shall be provided at all changes in vertical or horizontal alignment and at all junctions. On straight runs, manholes shall be placed at a maximum of 400 foot

intervals. Manholes shall be of pre-cast concrete truncated cone section construction meeting the requirements of ASIM Designation C 139, radial type. Bases may be cast in place 3,000 psi 28-day strength concrete or may be of pre-cast concrete, placed on a compacted foundation of uniform density. Metal frames and traps shall be set in a full mortar bed and with tops shall conform to the requirements of AASHTO M103 for carbon steel castings, AASHTO M105, Class 30, for gray iron castings, or AASHTO M (ASTMA 283, Grade B or better) for structural steel.

6. Catch basins shall be of pre-cast concrete truncated cone section construction meeting the requirements of ASIM Designation C478 or pre-cast concrete manhole block construction meeting the requirements of ASIM Designation C139, radial type. Castings shall be square cast iron sized for the particular inlet condition with the gratings perpendicular to the curb line. Bases may be cast in place 3,000 psi 28-day strength concrete or may be of pre-cast concrete, placed on a compacted foundation of uniform density. Metal frames and traps shall be set in a full mortar bed and with tops shall conform to the requirements of AASHTO M103 for carbon steel castings, AASHTO M105, Class 30, for gray iron castings, or AASHTO M183 (ASTMA 283, Grade or better) for structural steel.

- 3.4.7.9 Upon completion, all culverts, catch basins, or manholes shall be cleaned of all silt, debris or foreign matter and shall be kept clean until final acceptance.

3.4.8 Sidewalks:

Sidewalks shall not be required if the road adjoining the proposed road has no existing sidewalks. Where sidewalks are to be installed, they shall have a minimum unobstructed width of five feet and a side-to-side pitch of no more than two (2) percent, except where designed for handicapped access.

3.4.8.1 Sidewalk Construction Specifications:

1. All sidewalks shall consist of a finish course placed over a gravel base meeting the specification of section 3.4.5.3 for base course, placed twelve (12) inches thick after compaction.
2. Bituminous Sidewalks shall consist of a hot bituminous pavement surface course MDOT Spec. 9.5 mm mix, constructed in two lifts each no less than one inch after compaction.
3. Concrete Sidewalks shall be no less than four (4) inches thick, composed of 2,500 psi concrete mix, 5 % air entrained, with stone no larger than $\frac{3}{4}$ ". Concrete shall be reinforced with number 10 welded wire mesh with control joints no more than five (5) feet apart.

4. Brick or cobble-style sidewalks shall be placed on a bed of sand no less than two (2) inches thick over a gravel base no less than twelve (12) inches thick, separated by filter fabric to prevent mixing of sand and gravel base.

3.4.9 Additional Improvements and Requirements:

- 3.4.9.1 Erosion Control: The procedures outlined in the Erosion and Sedimentation Control Plan shall be implemented during site preparation, construction and clean-up stages.
- 3.4.9.2 Clean-up: Following street construction, the developer or contractor shall conduct a thorough cleanup of stumps and other debris from the entire street right-of-way. If on-site disposal of the stumps and debris is proposed, the site shall be indicated on the Plan, and be suitably covered with fill and topsoil, limed, fertilized and seeded.
- 3.4.9.3 Street Names, Signs: Streets which join and are in alignment with existing streets shall bear the same name. Names of new streets shall not duplicate nor bear phonetic resemblance to the names of existing streets within the Town, and shall be subject to the approval of the Skowhegan Street Addressing Officer. The developer shall reimburse the Town for costs of installing street name signs. The road developer shall install guide rail, traffic signs, and other traffic control devices as required and approved by the Road Commissioner.

- 3.4.9.4 Street lighting to be installed shall be approved by the Board.

3.4.10 Monuments

Stone monuments, or iron pins, shall be set at all street intersections and points of curvature, but no further than 750 feet apart along street lines without curves or intersections.

Stone monuments shall be a minimum of four (4") inches square at the top and four (4') feet in length, and set in the ground at final grade level. After they are set, drill holes, ½ inch deep shall locate the point or pints described above.

Iron pins shall be of adequate size (no less than 1/4" bar) to identify corners and shall bear the number of the professional land surveyor who installed them.

3.4.11 Certification of Construction:

As built plans shall be submitted to the Board of Selectmen. Upon completion of street construction and prior to a vote by the Board of Selectmen to submit a proposed public way for acceptance, a written certification signed by a professional engineer registered in the State of Maine shall be submitted at the expense of the developer certifying that the proposed way meets or exceeds the design and construction standards of this section.

3.4.12 Waiver of Standards:

- 3.4.12.1 Where in the course of reviewing applications under the Town of Skowhegan Site Review Ordinance or the Town of Skowhegan Subdivision Review Ordinance, the planning board finds that there are special circumstances of a particular site, or that there are more economical or effective engineering or technical practices, it may grant a waiver to the appropriate standard of this ordinance. Any waivers must be demonstrated to be not contrary to good design, public health, safety and general welfare of the public and must be documented in writing during the approval process.
- 3.4.12.2 Any person building a road intended to be proposed for public acceptance and which will not meet the standards of this ordinance must request a waiver from this ordinance directly from the Town of Skowhegan Board of Selectmen. Only the Board of Selectmen shall have the authority to grant a waiver to standards for roads proposed for public acceptance. The board may place reasonable conditions on the approved waiver, as it deems necessary, to endure that the objectives of this Ordinance are met.