

Town of Arundel

Street Design and Construction Standards Ordinance

1.1 TITLE AND AUTHORITY: This ordinance shall be entitled “Arundel Street Design Ordinance” and is enacted pursuant to the provisions of 30-A M.R.S.A. Sections 3001 to 3003.

1.2 PURPOSE: The purpose of these provisions is to establish appropriate standards for the design and construction of all streets in the Town, and to establish a procedure for the petitioning of streets to the Town for acceptance as Town Ways.

These street standards are designed to promote the following objectives:

- to protect the health, safety, convenience, and welfare of the Town's inhabitants;
- to complement and enhance the goals and policies of the Town Comprehensive Plan;
- to provide for safe and convenient pedestrian circulation;
- to provide for safe and convenient vehicular access and circulation;
- to minimize long term street maintenance and repair costs; and
- to minimize the creation of impervious surface in order to limit the impact of runoff on the Town's water resources.

1.3 DEFINITIONS:

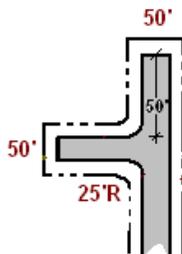
A.D.T: Average Daily Traffic (based upon the latest edition of the I.T.E. Trip Generation Manual).

DRIVEWAY: A Private access from a street to a building or buildings on abutting grounds on a single lot with legal lot frontage..

DRIVEWAY, COMMON: A driveway shared by up to four residential lots provided all lots have legal street frontage on a public street or an approved Private Way.

COMMERCIAL DRIVEWAY: A driveway serving multi-family residential development or up to three (3) non-residential lots with legal street frontage on a public or private street.

HAMMERHEAD: An alternative terminus to a street in which a 90-degree backup lane is provided to the tangent of the travel lane.



PUBLIC STREET: An existing state, county, or town Way; a Way dedicated for public use and shown upon a subdivision plan approved by the Planning Board and recorded in the York County Registry of Deeds; or a Way dedicated for public use and shown on a plan duly recorded in the York County Registry of Deeds prior to the establishment of the Planning Board and the grant to the Planning Board of its power to approve plans. The term "street" shall not include those Ways that have been discontinued or abandoned, nor shall it include a Private easement or right of Way not dedicated for public use. (Amended January 24, 2000)

PRIVATE STREET: A Privately-owned street providing legal access and lot frontage to a commercial or residential lot.

PRIVATE WAY: A Privately-owned street providing legal access and lot frontage to no more than ten (10) residential lots.

PRIVATE WAY, EXEMPTED: A Private Way serving residential lots exempted by Arundel Subdivision Review as defined in 30A-MRSA §4401,4, D1-D4 and constructed to the standards of Section 2.0 of the Arundel Street Design and Construction Standards Ordinance.

PRIVATE WAY, NON-EXEMPTED: A Private Way serving residential lots subject to review by Arundel Subdivision Review as defined in 30A-MRSA § 4401.4 and constructed to the standards of Section 2.0 of the Arundel Street Design and Construction Standards Ordinance and the Arundel Subdivision Regulations.

STAFF REVIEW COMMITTEE: The review authority for Private Ways and Administrative Site Plan and Conditional Use permits, consisting of the Arundel Public Works Director, the Fire Chief, the Code Enforcement Officer, the Town Planner, and the Town Assessor, or their designees.

STREET: The word “street” means and includes such public or private ways as alleys, avenues, highways, roads, streets and other rights—of-way which are used or intended to be used for passage or travel by motor vehicles. The term street shall not include driveways as defined above.

TOWN WAY: A street which has been accepted by the Town of Arundel and for which the Town becomes responsible for its maintenance, repair, plowing and other similar Town services.

1.4 PROCEDURES FOR STREET ACCEPTANCE AS A TOWN WAY

1.4.1 General: All streets which are laid out or proposed for Town acceptance shall be in accordance with Maine law and the provisions of this ordinance as follows:

1. **Subdivisions:** The Planning Board shall not approve any subdivision plan unless proposed street(s) are designed and to be constructed in accordance with the standards of this ordinance and the latest version of the Arundel Subdivision Regulations. Final subdivision plan approval by the Planning Board shall not be deemed to constitute or be evidence of acceptance by the Town of any street, easement or other open space.
2. **Site Plans:** The Staff Review Board/Planning Board shall not approve any site plan unless the proposed street(s) are designed and to be constructed in accordance with the standards of this ordinance. Final site plan approval by the Staff Review Board shall not be deemed to constitute or be evidence of acceptance by the Town of any street, easement or other open space.
3. **Petition to Town Legislative Body for acceptance of a street as a Town Way:** All petitions for the acceptance of a street(s) as a Town Way shall be made to the Board of Selectmen, prior to being brought before Town Meeting, and shall be in accordance with Maine law and the provisions of this Ordinance. Unpaved Private Ways are not eligible for petitioning or acceptance as Town Ways. A petition for acceptance of a street may be submitted to the Board of Selectmen no less than 10 months after the application of the surface coat of pavement in accordance with Section 1.6.3.3. The Board of Selectmen shall not accept a petition for acceptance of street in a subdivision unless buildings have been constructed and occupied on at least 75% of the lots in the subdivision.
4. **Other Streets:** The Code Enforcement Officer shall not issue a permit for a building which requires the construction of a new street until that street has been reviewed and approved by the Planning Board.

1.4.2 Application Procedure for Town Way Acceptance:

1. All petitions for-Town Way-acceptance shall be accompanied by an application that includes the following:
 - a. Petitioner's name, postal address, telephone number, email address, signature, and date.
 - b. Names of the owner(s) of record of the land upon which the proposed Town Way is located, including any proposed easements proposed as part of the petition to the Town.
 - c. A statement of any legal encumbrances on the land upon which the proposed Town Way is located.
 - d. An executed warranty deed to the Inhabitants of the Town of Arundel, containing a legal description of the proposed Town Way (and all associated easements), giving complete descriptive data by bearings and distances based upon a standard boundary survey of the parcel, made and certified by a Maine Professional Land Surveyor, along with a copy of the survey plan, and written verification by the P.L.S. that permanent monumentation has been set at all street intersections and points of curvature.

- e. A written certification by a professional engineer, registered in the State of Maine, certifying that the proposed Town Way meets or exceeds the design and construction standards set forth in Table 1.6 of this ordinance.
- f. One mylar and two sets of blue prints of as-built conditions of the proposed Town Way conforming to the plan requirements and standards of Section 1.6. Where underground utilities have been installed, the as-built plans shall show the final, installed location of such lines. In addition, the petitioner shall submit a pdf and an AutoCAD digital file providing the boundaries of the right of the Way of the proposed street that is referenced to the UTM (NAD 1983) and that can be imported into ArcGIS, version 10.4 or later.
- g. Date that street construction was completed, including the dates that the base course and surface course of pavement were installed.

1.5 STREET CLASSIFICATION:

The classification of an existing or proposed street shall be made by the Planning Board per 1.4.1.A. or Staff Review Board per 1.4.1.B. as applicable, after its consideration of the existing and proposed land use. For an existing street and/or extension of an existing street, the classification shall be based on existing and estimated A.D.T. For a proposed new street, classification shall be based on estimated A.D.T. (one single family home = 10 A.D.T.).

1.5.1. Arterial Street: A major thoroughfare which serves as a major traffic way through Town and between towns, and whose primary function is traffic movement. An Arterial Street shall have a traffic volume at least 10,000 vehicles per day and shall include, but not be limited, to the following arterials:

Route 1 Route 111 Log Cabin Road Route 35

1.5.2 Collector Street: A street with average daily traffic of over 250 vehicles per day, or a street serving as a feeder to an arterial and as a collector of traffic from minor streets, including, but not limited to, the following collectors:

Brimstone Road	Hill Road	Old Post Road
Campground Road	Limerick Road	River Road
Curtis Road	Lombard Road	Sinnott Road
Downing Road	Mountain Road	Thompson Road
Irving Road	New Road	

1.5.3. Minor Street: A street that generally serves to carry the least amount of traffic, at the lowest speeds. It is also intended to provide a safe environment for residential neighborhoods. Minor streets (or street section if it has more than one street connection) have an A.D.T. no greater than 250. Streets classified under this category shall be further classified as either “rural” or “growth”, based upon the guidelines of the Town's Comprehensive Plan.

1.5.4. Private Way: A Privately-owned street defined in Section 1.3 of this Ordinance. An unpaved Private Way shall not be eligible for Town services or for acceptance as a Town Way.

1.5.5. Commercial Street: A street servicing commercial and/or industrial land uses.

1.6 STREET DESIGN AND CONSTRUCTION STANDARDS: Except for Private Ways, all proposed streets, street extensions, and storm drainage systems shall be designed and constructed to meet the design standards of this section.

1.6.1 Plans: The plans and details which are submitted as part of an application shall be prepared, stamped, and signed by a professional engineer. The plans shall include detailed construction drawings, drawn at a scale of no more than 50 feet to the inch, shall show a plan view, profile and typical cross-section of the proposed street(s), and shall include the following information:

1. Date, scale and magnetic or true north arrow,
2. Intersections of the proposed street with existing streets,

3. All natural waterways and watercourses in or on land contiguous to the proposed street(s),
4. Kind, size, location, material, profile and cross-section of all existing and proposed drainage structures and their location with respect to the existing natural waterways and/or watercourses,
5. Complete curve data, including radii length, cord length, angle of change, and tangent points, shall be indicated for all horizontal and vertical curves,
6. Turning radii at all intersections,
7. All centerline gradients
8. The dimensions of lots, easements and building lines along the proposed street, and showing the names of the owners of such abutting properties,
9. Location of existing and proposed street pavement and street rights-of-way, shoulders, and curbs,
10. Location of existing and proposed curbing-
11. The location and size of existing and proposed overhead and underground utilities including the following:
 - a. water
 - b. sewer
 - c. electric
 - d. telephone, cable
 - e. street lighting
 - f. fire suppression system and hydrants
12. Street names which shall not closely duplicate the names of any existing street names in the Town.

1.6.2 Design Standards: All proposed streets shall be designed and constructed to the following standards:

1. Proposed streets shall conform to the Town's Comprehensive Plan.
2. All streets shall be designed to provide safe travel.
3. The arrangement, character, extent, width, grade, and location of all streets shall be considered in relation to existing or planned streets, topographical conditions, public convenience and safety, and the proposed use of the land to be served by the street. Grades of streets shall conform as closely as possible to the original topography.
4. The Board may require the reservation of a 50-foot-wide easement (or a width appropriate to meet the street as classified per Section 1.5) connecting the new street with an external boundary of a subdivision or parcel to be developed to provide a logical continuation of the street to an abutting site. This future connection will allow for safe and efficient traffic circulation.
5. All easements proposed under this section must be deeded to the Town.
6. Developments containing over 25 dwelling units or which generate average daily traffic (ADT) of over 250 trips per day, shall have at least two street connections either with existing public streets, or with streets shown on an approved subdivision plan or site plan for which a performance guarantee has been filed and accepted. The Planning Board shall permit commercial subdivisions or commercial projects generating 250 trips or more per day to establish a street connection if said street connection is to a State of Maine highway and approved by the Arundel Fire Chief. *Amended September 23, 2019*
7. The design standards shown on Table 1.6 apply according to the street classification of Section 1.5.

**Table 1.6
Minimum Road Construction Standards**

Standard	Minor	Collector	Arterial	Commercial
ROW Width	50'	50'	50'	50'
Travelway Width	20' paved	24' paved	24' paved	24' paved
Minimum Shoulder width	3' gravel	3' gravel	5' paved	3' paved
Minimum Gradient (2)	0.5%	0.5%	0.5%	0.5%
Maximum Gradient	8%	8%	8%	8%
Min. Centerline Radius (3)	150'	230'	250'	250-300'
Min. Tangent b/t reverse curves (4)	100'	230'	260'	300'
Minimum Road crown	¼ "/ft	¼ "/ft	¼ "/ft	¼ "/ft
Street Intersection Angle (5)	75° -90°	90°	90°	90°
Max Intersection Grade Within 75'	3%	3%	3%	3%
Curb radii at intersection (6)	20'	25'	30'	20'-30'
Min. Property line radii at intersection	10	10'	20'	20'
Turnaround	Cul-de-sac or Hammerhead	Cul-de-sac or 2 street connections	2 street connections	Cul-de-sac

(1) Maximum grade may be exceeded for a length not to exceed 200 feet.

(2) Centerline radii may be modified by the Planning Board based upon design speed, topography and alignment.

(3) Minimum tangents lengths between reverse curves may be determined modified based on design speeds and length of curve tangents.

(4) Street intersections should be designed as close as possible to 90 degrees, but may be skewed to improve sight distances.

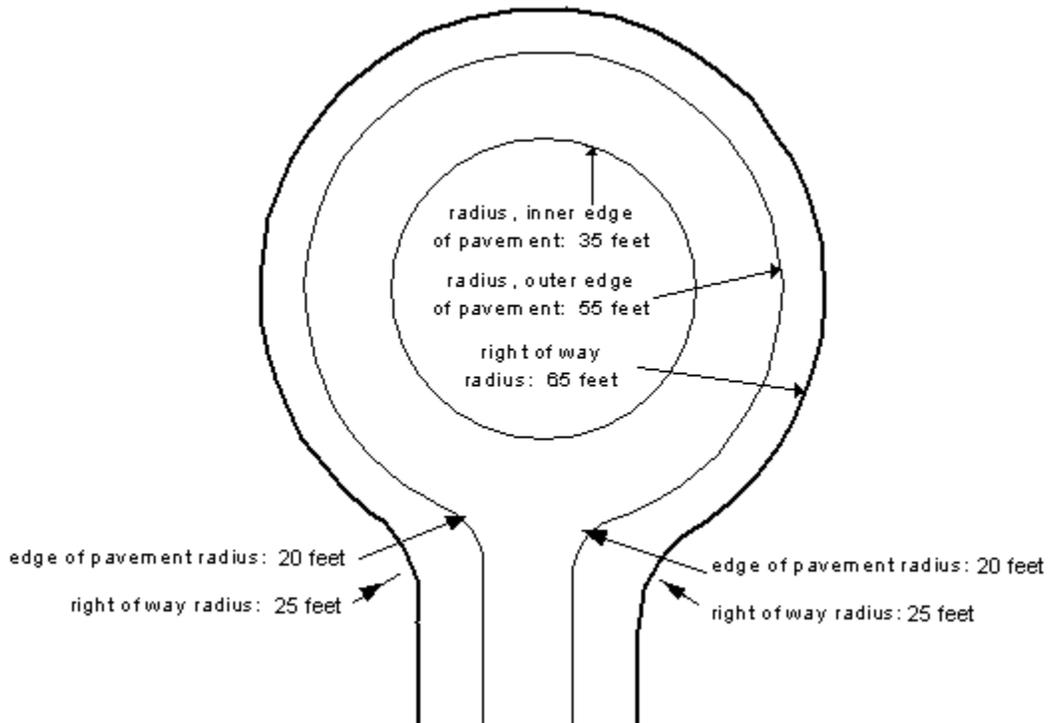
(5) Minimum curb radii shall be determined by the turning radii of commercial vehicles being served by the commercial road.

8. Dead End Streets - Except for streets classified as private rights-of-way, dead end streets shall be constructed so as to provide a turn-around meeting the minimum requirements of Table 1.6 and as illustrated in Figure 1.6-1, or where the cul-de-sac is located in a wooded area prior to development, a stand of trees- may be maintained within the center of the turnaround, unless otherwise waived by the reviewing board.

a. Hammerheads: Hammerhead terminus may be permitted on subdivision streets by the Planning Board,

b. Alternative Cul-de-Sac Designs: The Planning Board Reviewing Authority may permit alternative cul-de-sac designs such as one-Way "eyebrow" turnarounds or elongated cul-de-sacs. Offset cul-de-sacs shall be prohibited.

Figure 1.6-1
Minimum Dimensions of a Cul-de-Sac Turn-Around



9. Grades, Intersections and Sight Distances.

- a. **Conformance with Topography:** Grades of all streets shall conform in general to the terrain, so that cut and fill are minimized while maintaining the grade standards noted in Table 1.6.
- b. **Vertical Curves:** All changes in grade shall be connected by vertical curves of such length and radius as meet with the approval of the Planning Board so that clear visibility is provided for distances specified below.

Street Classification:	Collector	Minor	Private Way	Commercial
Stopping Sight Distance:	200'	100'	100'	250'

Stopping sight distance shall be calculated with a height of eye at 3 1/2 feet and the height of object at 1/2 foot.

- c. **Horizontal Sight Distance Standards:** Where new street intersections or commercial/industrial curb cuts are proposed, sight distances, as measured along the road onto which traffic will be turning, shall conform to the table below. Sight distance shall be measured from an eye point located 15 feet behind the edge of traveled Way at an elevation of 3.5 feet above the finished grade surface to a height of object of 4.25 feet above the pavement in the centerline of the travel lane approaching the intersection. Where unavoidable obstructions are encountered at the 15-foot setback, the point of eye may be moved to a point no closer than 10 feet from the traveled Way. If the special conditions of the site or of the use so warrant, the Planning Board may require such additional sight distance as will enhance safety.

Posted Speed Limit	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph
Sight Distance	250 ft	300 ft	350 ft	400 ft	450 ft	500 ft	550 ft

d. Cross Intersections: Cross (four-cornered) street intersections shall be avoided insofar as possible, except as shown on the Comprehensive Plan or at other important traffic intersections. A distance of at least two hundred (200) feet shall be maintained between center lines of offset intersecting streets.

10. Curbing

Curbing may be required within and along the public road frontage of all developments located in designated growth areas as specified by the Arundel Comprehensive Plan. Where installed, curbing shall meet the following minimum standards:

1. Type 1 or Type 5 granite curbing shall be installed on a thoroughly compacted gravel base of six inches minimum thickness. The specified pavement width shall be measured between the curbs. All curbs shall be vertical and shall be either granite or slip-form concrete except when Type 5 sloped curbs are specifically requested or allowed by the Board. Granite curbing or slip-form concrete shall be used for traffic islands, intersections, and any section where the curb radius is 50 feet or less.

1.6.3 Construction Standards:

1. Minimum thickness of materials after compaction:

CONSTRUCTION MATERIALS	MINIMUM REQUIREMENTS			
	Minor Street	Collector	Arterial	Industrial/Commercial
Aggregate Sub-base Course <i>(MDOT Type D)</i>	18"	21"	21"	21"
Crushed Aggregate Base Course <i>(MDOT Type A)</i>	3"	3"	3"	3"
Hot Bituminous Pavement (after compaction)				
• Total Thickness	3" "	4"	5"	5"
• Surface Course	1"	1 ½"	1 ½" "	1 ½" "
• Base Course	2"	2 ½" "	3 ½"	3 ½"

2. Preparation:

- a. Before any clearing has started on the right-of-way, the center line of the new street shall be identified and offset stakes set at 50-foot intervals. Limits of clearing shall be marked by stakes or flagging.
- b. Before grading is started, the right-of-Way area directly dedicated to the construction of the roadway and shoulders, and utilities shall be cleared of all stumps, roots, brush, and other objectionable material. All ledge, large boulders, and tree stumps shall be removed from this area.
- c. Tree stumps and other organic materials shall be removed to a depth of 2 feet below the subgrade of the roadway. Boulders shall also be removed to a depth of 2 feet below the subgrade of the roadway. On soils which are not suitable for roadways, the subsoil shall be removed from the street site to a depth of two feet below the subgrade and replaced with gravel borrow meeting the

State of Maine Department of Transportation's *Specifications for Highways and Bridges*, currently located in Section 700, Paragraph 703.20. In lieu of subsoil removal, geotextile fabric, such as Mirafi 600x or equal, may be applied.

- d. Fill side slopes shall not be steeper than a gradient of 3 feet horizontal to 1 foot vertical (3:1), and 2 feet horizontal to 1 foot vertical with the application of 6" angular rip-rap. Cut side slopes shall not exceed a gradient of 2 feet horizontal to 1 foot vertical (2:1) and 1:1 or less in ledge and consolidated rock. All side slopes in non-consolidated material shall be graded, fertilized, seeded, and mulched according to the erosion control standards of the *Maine Erosion and Sediment Control Handbook for Construction - Best Management Practices*, latest version.

3. Base and pavement material requirements:

- a. Aggregate Sub-base Course - M.D.O.T. 703.06(b) - Type D.
- b. Crushed Aggregate Base Course - M.D.O.T. 703.06(a) - Type A.
- c. Hot Bituminous Pavement:
 - a) Base Course: Base course paving shall meet the standard M.D.O.T. 703.09 - Grading B. Pavement may be placed only between April 15 and December 10 provided the air temperature in the shade at the paving location is 40°F or higher and the surface to be paved is not frozen or unreasonably wet.
 - b) Surface Course: Surface course paving shall meet the standard M.D.O.T. 703.09 - Grading C. Pavement may be placed on between April 15 and November 15 provided the air temperature in the shade at the paving location is 40°F or higher.
- d. Prior to the installation of the surface course of pavement, the base coat shall be cleaned with a mechanical sweeper and a "tack coat" of asphalt emulsion shall be applied. No less than fifteen days prior to the application of the surface course, the developer or contractor shall provide written notification to the Public Works Director or Town Engineer so that arrangements for inspection of the street may be made. The surface course shall not be applied until after the Public Works Director or the Town Engineer has provided a written statement indicating that the street is in satisfactory condition. The Public Works Director or Town Engineer's review shall include a field inspection of the street, to determine if there are any performance problems or structural failures which have occurred since the completion of the base coat of pavement.

1.6.4 Storm Drainage Design Standards:

1. Adequate provision shall be made for disposal of all storm water collected in streets and areas tributary to the street system. A storm water management plan shall be prepared by a registered professional engineer in accordance with *Urban Hydrology for Small Watersheds, T.R. 20 or T.R. 55*, latest edition, published by the U.S. Soil Conservation Service, or latest revisions thereof.
 - a. **Design Storm:** All storm water systems shall be designed to meet the criteria of a 25-year storm based on rainfall data from weather bureau records for Portland.
 - b. **Conveyances:** Appropriate conveyances for outlets to drainage systems must be provided.
 - c. **Minimum Pipe Diameter:** The minimum pipe size for any storm drainage pipe shall be 15 inches. Catch basins of an appropriate size and type shall be installed where necessary, and shall be located generally at the curb line. Catch basins shall be placed away from the line of traffic flow, however, shall be adequate in design and strength to accommodate vehicle traffic.
- 1) **Materials:**
 - a) Storm drainage pipes shall be one of the following:
 - i. Aluminized Type 2 culvert, MDOT Option 2
 - ii. PVC-SDR 35 (only where not exposed to the sunlight)
 - iii. Reinforced concrete
 - iv. HDPE, Resin 3408, ASTM 3350 or ASTM F-894
 - v. HDPE, smooth bore, ASTM 2648 and ASTM 477
 - vi. DR 32.5, DR 26, DR 17, ASTM F714

- b) Where the storm drainage pipe is to be covered by ten feet or more of fill material, pipe material shall be PVC SDR 35, DR 32.5, or SD 26, or DR 17, or reinforced concrete or HDPE Resin 3408, or HDPE, smooth bore pipe.
- c) Where storm drainage pipe may come into contact with salt water, HDPE Resin 3408, DR 32.5, or DR 26, or DR 17, or PVC SDR-35 pipes shall be used. Concrete pipes may be used upon approval by the Public Works Director.
- d) HDPE Corrugated Smooth Bore Pipe may be acceptable for use in street construction, provided that proper cover and backfill requirements are met for each application. In no instance shall less than 12" of cover be provide for pipes up to 48" in diameter and no less than 24" of cover for pipes greater than 48" in diameter. HDPE corrugated pipe shall be used for gravity applications only and shall be of bell and spigot construction and shall require the use of a watertight connection at manhole and drainage structures. Acceptable connection would be "A-lok Premium Connector" for corrugated pipe, or equal.

2) **Pipe Gauges:** Metallic storm drainage pipe shall meet the following thickness requirements depending on pipe diameter:

Material Inside Diameter	Aluminumized C.M.P.
12" to 24"	14 ga.
30" to -84"	12 ga.

- 2. Existing or future downstream drainage requirements shall be studied to determine the effect on proposed drainage. The applicant shall demonstrate to the satisfaction of the Board that the storm drainage will not, in any way, overload existing or future storm drainage systems downstream from the proposed street. The drainage requirement for a two, ten and 25-year storm shall be evaluated to determine drainage system needs, in accordance with *Natural Resource Conservation Service Technical Release 55 or Technical Release 20*.
- 3. For both upstream and downstream drainage, in determining the rate and volume of surface run-off, the following factors must be considered:
 - a. intensity of rainfall: 25-year design storm;
 - b. timing of rainfall (e.g. falling on snow or during the spring snow melt);
 - c. amount of precipitation occurring in the five days preceding the storm in question;
 - e. hydrologic soil group (i.e. the soil's rate of water infiltration and transmission. The rates for soils are described in the *Best Management Practices Handbook*, latest revision);
 - f. hydrologic conditions (soil's moisture content humus/organic content, temperature, and whether or not it is frozen);
 - g. vegetative cover (vegetation helps soil dry out after a rainfall, intercepts some precipitation during the rainfall, and slows down the flow of water over the land);
 - h. area of land covered by impervious surfaces (roads, sidewalks, roofs, driveways, patios, etc.);
 - i. topography (slopes affect the rate of run-off; marshland reduces peak discharge rate by slowing down the rate of run-off);
 - j. size and shape of watershed (peak discharge rates are slower in long, narrow watersheds, and vice versa).
- 4. An underdrainage system shall be installed to properly drain all springs or areas where the ground water level is within one foot of the bottom of road sub-base and would cause a hazard to the stability of the roadway base.
- 5. No storm water shall be permitted to drain across the surface of a street or an intersection.

1.6.5 Storm Drainage Construction Standards:

1. All storm drain construction shall be in conformity with State of Maine *Specifications for Highways and Bridges*, latest revisions.
2. **General Construction Requirements:**
 - a. Trenching shall be accomplished in accordance with all appropriate state and federal safety requirements.
 - b. Drain alignment shall be straight in both horizontal and vertical alignment, unless specific approval of a curvilinear drain is obtained in writing from the Board.
 - c. Manholes shall be provided at all changes in vertical or horizontal alignment, and at all junctions. In straight runs, manholes shall be placed at a maximum of 300 feet intervals.
 - d. Where necessary, outlets shall be terminated in an endwall of concrete construction, or shall be rip-rapped to prevent erosion, or other appropriate measures taken. Facilities for energy dissipation shall be provided where necessary.

1.6.6 Additional Improvements and Requirements:

1. **Erosion Control:** An erosion control plan shall be prepared by a professional engineer, licensed in the State of Maine, and designed in accordance with the standards of the *Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices*, latest version. Procedures shall be undertaken, during preparatory, construction, and cleanup stages, to prevent soil erosion and water pollution.
2. **Cleanup:** Following street construction, the developer or contractor shall conduct a thorough cleanup of stumps and other debris from the entire road or street right-of-way. Each catch basin or manhole shall be cleaned of all accumulation of silt and debris and kept clean.
3. **Street Name, Street Signs, Street Lights:** Streets that join and are in alignment with streets of abutting or neighboring properties 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 911 Addressing Director. Street name signs and directional signs shall be shown on plans and shall be furnished by the developer. The type, size and location shall be subject to the approval by the Public Works Director. Street lighting shall be installed as required by the Planning Board or Staff Review Board per the applicable plan review and shall be consistent with the Town's street lighting standards.
4. **Utilities**, where available, shall be installed prior to the street construction phase so as to avoid re-excavation of the finished street.

1.7 PERFORMANCE GUARANTEE

- 1.7.1 **Purpose** - Performance guarantees shall be provided to ensure the proper installation of required street, utility, storm drainage and other improvements, excepting exempt private ways.
- 1.7.2 **Submission of Performance Guarantee** - Prior to plan approval per the applicable reviewing Board under Section 1.4.1 the applicant shall submit a performance guarantee for an amount adequate to cover the total construction costs of all required improvements. The guarantee shall contain a construction schedule, cost estimates for each phase of construction, provisions for inspections of the construction, provisions for method of release of part or all of the performance guarantee to the developer, and a date after which the developer will be in default and the Town shall have access to the funds to finish construction.

The performance guarantee that is submitted for the Board's approval shall first be reviewed and accepted by the Town Manager. The following types of guarantee are acceptable methods:

1. **Certified Check** payable to the Town or a savings account naming the Town as owner, for the establishment of an escrow account.
2. **Performance Bond** payable to the Town issued by a surety company.
3. **An irrevocable letter of credit** from a financial institution which establishes funding for the construction of the required improvements, and from which the Town may draw upon if the construction is not completed in conformance with the approved plan.

4. **Conditional (one year) plan approval** stipulating that there shall be no conveyance of lots or issuance of building permits until a performance guarantee covering the total cost of all required improvements and conforming to the format of 1.7.2.1, 2, or 3 above, is submitted to the Reviewing Board and approved. A note shall be placed on the final plans listing this condition.
 5. **Tri-Party Agreement:** A contractual instrument whereby the designated financial institution agrees not to release any portion of escrowed performance assurance monies to the Owner or the Owner's contractor unless so authorized by the Town Planner and Town Engineer.
- 1.7.3. **Phasing of Development:** The Planning Board or Staff Review Board may approve plans to develop a major development in separate and distinct phases. This may be accomplished by limiting final approval to those lots, commercial or industrial buildings, abutting that section of the proposed road that is covered by a performance guarantee. When development is phased, road construction shall commence from the public Way. Final approval of subsequent phases shall be given only after determining that there has been substantial completion of requirements pertaining to the first and/or previous phase(s) of development.
 - 1.7.4. **Inspection of Required Improvements:** No street construction shall be initiated until the required inspection fee has been submitted to the Town to cover the costs of having each construction stage inspected by the Town's inspection agent (engineer) per the Town's inspection schedule.
 - 1.7.5. **Release of Guarantee:** Prior to the release of any part of the performance guarantee, the Planning Board shall determine to its satisfaction, in part upon the inspection report of the Town's Engineer, that the site improvements meet or exceed the design and construction requirements for that portion of the improvements for which the release is requested.
 - 1.7.6. **Default:** If, upon inspection, the Town's Engineer finds that any of the required improvements have not been constructed in accordance with the plans and specifications filed as part of the application, he shall so report in writing to the Code Enforcement Officer, the Municipal Officers, the Planning Board and the developer or builder. The Municipal Officers shall take any steps necessary to preserve the Town's rights.
 - 1.7.7. **Assignment or Transfer** - No assignment or transfer of rights to construct the project is valid without prior approval, by the Planning Board, of a new performance guarantee to ensure that any assignee or transferee has the financial and technical capacity to complete the project. Should a previously approved performance guarantee become invalid for any reason, the plan approval shall be nullified until such time as a new performance guarantee is approved in the same manner as was originally approved.

2.0 PRIVATE WAYS

To provide for the public's safety and access by the town's emergency vehicles, no structures intended for human occupancy or a commercial operation shall be permitted on a lot without frontage on a public street or on a Private Way constructed in conformance with the criteria of Section 2.0 of this Ordinance.

2. 1. BACK LOT ACCESS:

Any structure intended for human occupation or commercial purposes may be constructed on a back lot created before June 9, 2010, provided that all of the following conditions are met:

- 2.1.1: The existing back lot meets all land use and dimensional requirements of the zoning district other than street frontage;
- 2.1.2: Access to the back lot is provided by a legally-executed easement or right-of-Way recorded in the York County Registry of Deeds;
- 2.1.3: Said easement or right-of-Way provides or will provide access and/or frontage exclusively to a single back lot containing only one use or one single-family dwelling unit;
- 2.1.4: The access travel Way within the designated easement or right-of Way is constructed to the standards of a 1-lot Private Way specified in Table 2.3.
- 2.1.5: No additional lots, dwelling units, or uses shall gain legal access or establish legal frontage via the designated easement or right-of-Way, without first meeting the dimensional and construction standards for Private Ways specified in Section 2.3.1 for the total number of units or lots served by the Private Way.

2.2 EXISTING PRIVATE WAYS:

Rights of Way and Private Ways, as formally defined, legally established prior to June 9, 2010 are eligible to be constructed to the standards and approval standards in this Ordinance, provided all of the design requirements of Table 2.3 can be constructed within the limits of the existing rights-of-Way.

2.3 PRIVATE WAY CONSTRUCTION STANDARDS:

All Private Ways serving two (2) lots/units or more and created after June 9, 2010 shall be constructed to the appropriate standard in Table 2.3 based on the maximum number of minimum-sized lots or units that can be subdivided on the parcel.

2.3.1. Design Standards: Private Way shall be constructed to the standards specified in Table 2.3:

**TABLE 2.3
PRIVATE WAY CONSTRUCTION STANDARDS**

Standard	1 Lot (Only for Back Lots created before June 9,2010)	Exempt and Non-Exempt 2-10 Lots or Dwelling Units
Residential Uses		
Minimum Right of Way	30 feet	50 feet
Minimum Travel Way width	12 feet	16 feet
Minimum Depth of Base Gravel	12 inches	15 inches
Base Gravel Standard	Bank Run	MDOT Type D
Crushed Aggregate Base Course	0 inches	3 inches
Crushed Aggregate Type	N/A	MDOT Type A
Bituminous pavement	Apron at intersection with paved road only	Apron at intersection with paved road only
Crown	None	¼ inch /foot
Shoulder Width	1 foot	1 foot
Minimum Gradient	0.8%	1%
Maximum Gradient	N/A	10%
Minimum Centerline radius	N/A	75 feet
Tangent between radii	50 feet	75 feet
Angle of Street Intersections	>75 degrees	75-90 degrees
Maximum gradient within 50 feet of intersections	N/A	5%
Min Curb Radii at intersections	10 feet	15 feet
Terminus	NA	Hammerhead or 65' Cul de sac

2.3.2 Street Intersection Standards:

Private Ways intersecting with Town Streets shall be designed with a minimum 0.5% reverse slope from the edge of the street pavement to the centerline of the street drainage ditch. That portion of the Private Way within 25 feet of the edge of the street pavement shall be constructed with a minimum of 2 inches of bituminous pavement.

2.3.3. Access to other Private Ways

A new Private Way may gain access from any other Private Way comprised of less than a 50-foot right of Way and a 16-foot travelway. A Private Way with less than the minimum 16-foot travelway and shoulders may be extended provided the following conditions are met:

- a. The proposed Private Way extension meets all design standards in Section 2.3.1;
- b. The applicant provides the Staff Review Committee with adequate evidence that the existing non-conforming Private Way has sufficient width to accommodate the traffic increase generated by the extension, and

- c. The existing non-conforming travelway is of sufficient bearing capacity to support passage of emergency vehicles.

2.3.4. Parking /Storage in Road Turnarounds Prohibited:

No vehicles, watercraft, structures or materials shall be parked or stored in any portion of a hammerhead, cul-de-sac, or modified T terminus.

2.3.5. Drainage Standards:

Private Ways shall be designed with surface or subsurface drainage facilities to accommodate runoff generated from the Private Way.

1. **Design Storm:** All shoulder drainage ditching shall be designed at a minimum to accommodate runoff from the road watershed generated during a 10-year storm event. Culverts shall be designed to a minimum standard to accommodate a 25-year storm event. Depending on topography and site conditions the Staff Review Committee reserves the right to adjust the design storm minimums for roadside ditching and culverts.
2. **Zero Peak Runoff:** No runoff shall be discharged from the site or into any watercourse or Resource or Shoreland wetland at a peak runoff level greater than existing conditions.
3. **Culvert Materials:** All culverts within the Private Way right-of-Way shall be no less than fifteen (15) inches in diameter and shall consist of either aluminized corrugated metal pipe, SD 32.5-SD17, or HDPE corrugated plastic pipe with a minimum of one (1) foot of finished top cover, or other material so approved by the Arundel Public Works Department.
4. **Drainage Easements:** Discharge of new concentrated runoff onto an abutting property shall not be permitted unless a drainage easement is granted by the abutter.

2.3.6 Sedimentation & Soil Erosion Control Standards:

All Private Way construction shall be accompanied by proper soil erosion control and sedimentation devices installed and maintained in accordance with the *Maine Erosion & Sediment Control Best Management Practices (BMPs)*, as published by the Maine Department of Environmental Protection.

2.4 APPROVAL REQUIRED

2.4.1. EXEMPT PRIVATE WAYS

All Exempt Private Ways shall be approved by the Staff Review Committee prior to the issuance of any building or road construction permits.

1. Plan Submission:

A plan and centerline profile of the proposed Private Way shall be prepared and sealed by a Professional Land Surveyor licensed to practice in the State of Maine and shall be drawn with permanent ink on Mylar. The plan and profile shall show all existing property lines and existing conditions as well as proposed on-site and off-site improvements, existing and proposed topographic contours at an interval determined by the Staff Review Committee, drainage structures, soil erosion control devices, and typical road crosssection. The plan should also contain the following components:

1. **Approval Block:** The Private Way Plan shall contain an approval block with lines for signatures of the Arundel Staff Review Committee.
2. **Town Disclaimer:** The following statement shall be affixed to the Plan: “The Town of Arundel shall not be responsible for the construction, plowing, maintenance or repair of this Private Way”
3. **Waiver of Submission Requirements:** The Staff Review Committee may waive contour intervals, drainage structures, or similar submission requirement deemed to be superfluous given field conditions and irrelevant to the consideration of the plan.

2. Maintenance Agreement:

Maintenance agreements shall be executed for any Private Way providing access to a duplex or-two or more lots. The Maintenance Agreement shall specify the rights and responsibility of each unit or lot owner for the repair, plowing, and maintenance of the Private Way. The executed Maintenance Agreement shall be recorded in the York County Registry of Deeds for each lot served and a stamped

copy shall be submitted to the Code Enforcement Officer prior to final approval of the Private Way plan.

2.4.2 NON-EXEMPT PRIVATE WAYS

All Non-Exempt Private Ways shall be reviewed by the Planning Board in accordance with the procedures of the Arundel Subdivision Regulations prior to the issuance of any building or road construction permits.

2.5. EXEMPT PRIVATE WAY REVIEW PROCEDURES

2.5.1. Staff Review Committee Approval Process

All applications for Private Ways shall be reviewed by the Arundel Staff Review Committee. Within thirty (30) days of receiving a complete Private Way application, the Staff Review Committee shall conduct an on-site Public Hearing in which members of the Public are invited to attend and comment. Notifications shall be mailed to all property owners located within two hundred (200) feet of the Private Way, and a public hearing announcement shall be published in a newspaper of general circulation within seven (7) days of the Public Hearing.

Within fifteen (15) days of the Public Hearing, the Committee shall render a decision to approve, deny, or approve the Private Way application with conditions.

2.5.2 Approval Criteria:

The Staff Review Committee shall review all Private Way applications in accordance with all of the evidence submitted by the applicant, and shall specific findings of fact that the following standards have been met:

1. The proposed Private Way conforms with the design standards of Section 2.3 of this Ordinance.
2. The proposed Private Way has received all applicable State and Federal permits;
3. The proposed Private Way provides adequate soil erosion and sedimentation controls in conformance with section 5.4 of the Arundel Land Use Ordinance;
4. The proposed Private Way will not adversely impact on or off-site drainage systems, particularly municipal systems, and complies with section 5.20 of the Arundel Land Use Ordinance;
5. The proposed Private Way is in conformance with section 5.8 Floodplain Management and section 8.0 Shoreland Zoning regulations of the Arundel land Use Ordinance.
6. The proposed Private Way will not have an adverse impact upon existing vehicle circulation systems and safety within the neighborhood and community.

2.6 RECORDING OF PLAN:

An approved and signed Private Way plan shall be recorded by the applicant in the York County Registry of Deeds within sixty (60) days of the signing of the plan. Failure to register the plan within the 60 days will void the Staff Review Committee's approval.

2.7 INSPECTION AND CERTIFICATION:

2.7.1 Inspections: Private Ways shall be inspected under the direction of the Arundel Public Works Director, or designee and with the assistance of the Code Enforcement Officer. The Public Works Director may mandate that a Consulting Engineer be contracted by the Town to conduct inspection services on all or portions of the Private Way construction. The applicant shall be responsible for reimbursing the Town for all inspection services.

2.7.2 Private Way Certification: Prior to the issuance of building permits, the Public Works Director or designee, shall certify that the Private Way has been constructed in accordance with approved plans and design and performance standards in this section.

2.8: COMPLETION DEADLINES:

Except in the case of a phased development plan, all *Exempt Private Way* projects shall commence within eighteen (18) months from the date of the approval and shall be completed within three (3) years from the approval date. The Staff Review Committee may grant one (1) year extensions to completion deadlines when warranted by unusual circumstances. Failure to complete construction of the Private Way within the specified completion period shall render the Private Way approval null and void. Upon determining that a Private Way's approval has expired under this paragraph, the Staff Review Committee shall have a notice placed in the Registry of Deeds to that effect.

3.0 VARIANCES AND WAIVERS:

3.1. WAIVERS OF EXEMPT PRIVATE WAY DESIGN REQUIREMENTS: The Staff Review Board may, as part of their review and approval of an Exempt Private Way plan, waive or amend certain design and construction standards of Table 2.3 where the Committee makes written findings of fact documenting that special circumstances of the parcels served by the Private Way may warrant a waiver or an amendment to the Standards of Section 2.3 herein, provided the following performance standards are met:

- 3.1.1** The proposed waiver or amendment is not necessitated by the actions of the applicant or prior owners, or due to violations of applicable Town of Arundel Ordinances;
- 3.1.2** The proposed waiver or amendment will not compromise public health, safety, or welfare;
- 3.1.3** The proposed waiver or amendment will not adversely impact surface or groundwater quality, slope stability, or environmental quality,
- 3.1.4** The proposed waiver or amendment will not generate on or off-site traffic impediments or hazards, nor endanger the free access or safety of emergency responders and emergency response apparatus and equipment;
- 3.1.5** The proposed waiver or amendment will not effectively nullify the intent and purpose of this Ordinance, the Land Use Ordinance, the Arundel Subdivision Regulations, the Arundel Comprehensive Plan, or State law.

3.2. WAIVERS OF STREET ACCEPTANCE CRITERIA: Any variance/waiver of the provisions of this ordinance which is part of a petition for acceptance of street as a Town Way shall be decided by the Board of Selectmen and shall conform to the standards of Section 3.2.1 and 3.2.2 below.

3.2.1. Hardship: Where extraordinary and unnecessary hardships would result, or due to the special circumstances of the site, certain requirements of this ordinance may be varied or waived by the Board of Selectmen based upon the following criteria:

- 1. The requested variance/waiver shall have been previously reviewed and approved by the Planning Board . Such approval shall specifically address the impact of the requested variance/waiver upon: the safe functioning of the street, the long-term costs of maintaining the street, and the Town's ability to provide public services along the street;
- 2. The required thickness of pavement shall not be reduced; and
- 3. A report from the Town's Consulting Engineer concerning the expected performance of the street (per the criteria listed in subsection A.1. above) if the variance/waiver is granted.

3.2.2. Conditions: In granting such variances/waivers, the Board of Selectmen shall require such conditions, which in its judgment, secure the objectives of Section 1.2 of these standards and of the requirement(s) so varied or waived.

4.0 APPEALS

4.1 APPEALS OF STAFF REVIEW COMMITTEE

Decisions of the Staff Review Committee regarding Private Way applications may be appealed to the Arundel Zoning Board of Appeal within thirty (30) days of the date of the decision, or directly to the York County Superior Court, within thirty days (30) from the date of the decision.

4.2 APPEALS OF PLANNING BOARD:

Any aggrieved party may appeal the decision of the Planning Board under these regulations directly to the York County Superior Court, within thirty days (30) from the date of the decision.

4.3 APPEALS OF THE SELECTMEN:

Any aggrieved party may appeal the decision of the Board of Selectmen under these regulations directly to the York County Superior Court, within thirty days (30) from the date of the decision.

5.0 SEVERABILITY: The invalidity of any section or provision of this ordinance shall not be held to invalidate any other section or provision of this ordinance.

6.0 EFFECTIVE DATE: This ordinance shall take effect immediately upon adoption of the same by a Town Meeting.

7.0 AMENDMENT: This ordinance may be amended by the municipal legislative body in accordance with Maine law and the municipal charter. The Planning Board shall hold a public hearing on any proposed amendment at least 20 days prior to action by the legislative body. Notice of the public hearing shall be posted at the town office at least 13 ~~40~~ days prior to the hearing and shall be published in a newspaper of general circulation in the municipality once at least 13 days and again seven (7) days prior to the hearing