

Town of Ancram
Highway Construction Standards
Adopted June 2017

Contents

SECTION I – GENERAL PROVISIONS.....	2
SECTION II - ROAD and DRIVEWAY DESIGN and CONSTRUCTION STANDARDS.....	4
SECTION III - DEFINITIONS.....	21
SECTION IV - SEPARABILITY, EFFECTIVE DATE and REPEALER	23

Town of Ancram Local Law #2 of 2017

A Local Law Updating the Town of Ancram Highway Construction Standards

Be it enacted by the Town Board of the Town of Ancram, Columbia County, New York, as follows:

Preface

A. Title

This Local Law shall be entitled “A Local Law Updating the Town of Ancram Highway Construction Standards”. It is the intention of the Town of Ancram Town Board that this Local Law shall repeal and replace the entirety of the Town’s existing Highway Construction Standards, which standards were appended to the Land Subdivision Regulations adopted as Local Law # 1 of 2015, and any Town of Ancram Highway Construction Standards existing prior thereto. This Local Law No. 2 of 2017 shall be called and known as the “Town of Ancram Highway Construction Standards”.

B. Enactment and Authority

This Local Law is adopted and enacted pursuant to the authority and power granted by Articles 2 and 3 of the New York State Municipal Home Rule Law, Article 2 of the New York Statute of Local Governments.

SECTION I – GENERAL PROVISIONS

- A. General Provisions for Highways. These standards are adopted for the construction of highways, roads, streets or other traffic ways in the Town of Ancram to accommodate expected travel safely and conveniently, and to provide access for firefighting, emergency medical care, snow removal, and other road maintenance equipment, and for all community services and activities. These highway standards are intended to complement and accomplish goals of the Town of Ancram Comprehensive Plan, Zoning Law, Subdivision Regulations, and New York State Town law, as may exist, and thereby contribute to the scenic, rural, traditional character of the Ancram Community.
- B. Coordination with other Laws. All requirements related to highways, roads, streets, and driveways included in the Town of Ancram Zoning Law and Subdivision Law, as the case may be, shall be met unless specifically excepted.
- C. These standards are issued as requirements for design and construction of facilities by private landowners and developers.
- D. Any standard or specification referred to shall be understood to be the current version of that

standard or specification. The Planning Board may require higher standards where it believes they are justified. The Planning Board may also consider approval of a design or construction method which is not included in these standards provided that such design or method fully meets all the purposes established by the Town of Ancram in its zoning and subdivision laws.

- E. In general, the Subdivision Plat, development map, and the plan/profiles included in the final submission shall include enough detail to show compliance with these design standards as well as those required by the zoning and subdivision laws. The Planning Board may require the submission of design calculations for review by the Town's Engineer.
- F. Procedures for Compliance. Compliance with construction standards and the approved Final plan shall be required during construction. Final approval of the development construction and release of any Letter of Credit if one be required, shall be dependent upon such compliance. Compliance inspections as needed will be carried out by the Town Engineer and paid for by the applicant.

SECTION II - ROAD and DRIVEWAY DESIGN and CONSTRUCTION STANDARDS

A. General Provisions

Purpose: These specifications are adopted for the construction of all highways, roads, streets, driveways, or other traffic ways in the Town of Ancram to accommodate expected travel conveniently and safely, and to provide access for firefighting, emergency medical care, snow removal and other road maintenance equipment and for all community services and activities. For driveways, common driveways, private and public roads, all standards of this law shall be met with the exception that paving is not required for certain roads or driveways pursuant to Section II (C) or Section II B (14).

B. Specifications for All Roads within the Town of Ancram

1. Road Width, Location and Construction

Roads shall be at least eighteen (18) feet in width, with a minimum two (2) foot shoulder and four (4) foot ditch on each side, suitably located and adequately constructed with necessary drainage to conform with the Town's Comprehensive Plan, to accommodate the prospective traffic and to afford satisfactory access to vehicles for police, fire fighting, emergency medical care, snow removal and other road maintenance equipment. The Planning Board may require wider road shoulder widths to accommodate bicycle and pedestrian facilities. The arrangement of streets shall be such as to cause no undue hardship to adjoining properties, and shall be coordinated so as to compose a convenient system. Roads shall have a minimum right-of-way of fifty feet (50'). Whenever a subsequent subdivision proposes to add additional lots to an approved common driveway or road, the Planning Board may require upgrades to all or part of such common driveway or road so that it can safely accommodate traffic volumes.

2. Road Arrangement

The arrangement of roads in a subdivision shall provide for the continuation of principal streets of adjoining subdivisions, and for proper projection of principal streets into adjoining properties which are not yet subdivided, in order to make possible necessary police, fire, and emergency protection, movement of traffic and the construction or extension, presently or when later required, of needed utilities and public services such as sewers, water and drainage facilities. Where, in the reasonable discretion of the Planning Board, topographic or other conditions make such continuance undesirable or impractical, the above conditions may be modified.

3. Minor Streets

Minor streets shall be so laid out so that existing and future street connections facilitate access to and from different parts of the tract and adjoining parcels. In existing or new

hamlets or traditional neighborhoods, streets should be interconnected.

4. Provision for Future Re-subdivision

Where a tract is subdivided into lots substantially larger than the minimum size required in the zoning district in which a subdivision is located, the Planning Board may require that streets and lots be laid out so as to permit future re-subdivision in accordance with the requirements contained in these regulations.

5. Dead-End Streets

a. The Town of Ancram Comprehensive Plan, and Zoning Law (Article V, (C) (7) seek to minimize use of dead end streets. As such, subdivisions shall have at least two (2) street connections with existing public streets, to the maximum extent practical. The Planning Board, in its sole discretion, shall make the final decision based on the site and development character of the application in question.

b. The creation of dead-end, loop or cul-de-sac residential streets is discouraged.

1. Any dead-end street that is created due to the unique circumstances of the development and parcel shall not exceed 600 feet in length, nor serve more than ten (10) lots.
2. If a dead-end street is deemed necessary, it shall be designed as a 'T' end or 'hammerhead' design instead of a cul-de-sac to the maximum extent feasible.
3. Cul-de-sac's shall be used only when no other alternative exists. In such instances, the number of units with access to a cul-de-sac shall be not more than six (6). The bulb width shall be reduced as much as possible consistent with access for highway and emergency vehicles. The entire length of the cul-de-sac shall have a minimum right-of-way diameter of fifty-feet (50') with an eighteen-foot (18) minimum travel way with a bulb radius to the centerline as small as possible pursuant to requirements of the New York State Fire Code. Any island in the cul-de-sac shall require drainage in the form of a drywell or pipe to daylight. See Diagram 2, Typical Cul-de-Sac Illustration.

c. In the case of dead-end streets, where needed or desirable, the Planning Board may require the reservation of a 24-foot wide easement to provide for continuation of pedestrian traffic and utilities to the next street.

6. Block Size

Blocks, in hamlets, traditional neighborhoods, and major subdivisions, generally shall not be less than 600 feet nor more than 800 feet in length. In general, no block width shall be less than twice the normal lot depth. The Planning Board may require the reservation of a 20-foot wide easement through the block to provide for the crossing of underground utilities and pedestrian traffic where needed or desirable and may further specify, at its

discretion, that a four foot (4') wide paved footpath be included.

7. Intersections with Major Arterial Roads

Street openings onto major roads shall, in general, be at least 500 feet apart.

8. Street Jogs

Street jogs with center line offsets of less than 125 feet shall be avoided.

9. Roads and Angle of Intersection

In general, all streets shall join each other so that for a distance of at least 100 feet the street is approximately at right angles to the street it joins.

10. Roads and Relation to Topography

The street plan of a proposed subdivision shall bear a logical relationship to the topography of the property, and all streets shall be arranged so as to obtain as many of the building sites as possible at or above the grade of the streets. Grades of streets shall conform as closely as possible to the original topography. All road designs should conform to the American Association of State Highway Transportation Officials (AASHTO) standards.

11. Other Required Streets

Where a subdivision borders on or contains a railroad right-of-way or limited access highway right-of-way, the Planning Board may require a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of the intervening land (as for park purpose in residential districts, or for commercial or industrial purposes in appropriate districts). Such distances shall also be determined with due regard for the requirements of approach grades and future grade separations.

12. Road Intersection Sight Distance

Intersection Sight Distance for proposed roadways must be in accordance with guidelines as established by the American Association of State Highway Transportation Officials (AASHTO), based on the design speed limit of the road.

13. Road Grades: Grades of all roads, public or private shall conform in general to the terrain, and shall not be less than one-half (1/2) nor more than six percent (6%) for major roads, or ten percent (10%) for minor roads and up to 12% for short road (200 feet) sections. In no case shall a street have more than a two percent (2%) grade within 50 feet of any intersection.

14. Private Roads. Private roads need not be paved, but shall meet all other road standards. The geometry and construction of any private road shall comply with all other Town highway and road standards.

15. Dedication: The Town Board, in its sole discretion, may reject any request that a highway, road, street or other traffic way be considered for formal dedication and acceptance by the town, or for maintenance with Town funds. In determining such acceptance, no highway, road, street or other traffic way will be considered for formal dedication and acceptance by the Town Board, or for maintenance with town funds unless
- a. the design and construction are in accordance with these specifications as certified by the Town Engineer or designate; and
 - b. the highway, road, street or other traffic way is in a condition acceptable to the Town Highway Superintendent.
16. Prior to any construction, a sediment and erosion control plan or a SWPPP¹ (see Footnote 1) that meets New York State Department of Environmental Conservation requirements, as may exist, must be developed and approved by the Town Highway Superintendent and/or Town Engineer. Low impact designs shall be incorporated to minimize stormwater runoff to the maximum extent feasible.

C. Standards Applicable to All Driveways

1. All new gravel or paved driveways shall be designed to provide safe ingress and egress to the public. This includes consideration of sight distances, grades, drainage, and winter conditions. All driveways shall conform to the following standards:
 - a. Sight distance – 500 feet in both directions or as approved by the Town Highway Superintendent.
 - b. Grades – the driveway shall be sloped away from the public road to which it connects at a slope of 1% for the first 20' of the driveway. Beyond that, the driveway shall have a slope no greater than 5% for the next 30 feet. Beyond that point, the average slope of a driveway shall not exceed 10%. The maximum slope shall not exceed 12% for a length not to exceed 200 feet.
 - c. Curves – Driveway curves shall be no less than 40 feet in radius unless approved by the Fire Chief.
 - d. Surface width – The traveled surface shall be 12 feet in width (minimum) to allow access for emergency vehicles, except for driveways constructed for flag lots (see Town of Ancram Zoning Law Article V (A) (11) and common driveways (see next sub-section).

¹ Compliance with DEC stormwater regulations means that for residential construction that disturbs one acre or more, a Notice of Intent (NOI) must be filed and an erosion and sediment control plan must be prepared. For residential development that disturbs five acres or more, the NOI must be filed and a stormwater pollution prevention plan must be prepared (SWPPP) as per DEC requirements. Commercial developments must file the NOI and prepare a SWPPP when more than one acre is disturbed.

- e. Emergency Pull-Offs - Wherever the road width specified is less than 20' or in any way not sufficient to accommodate emergency vehicles passing by each other or the length of any common driveway or private driveway is at least 500', a pull off of 15'x50' shall be provided for as per New York State Code. See Diagram 3 – Emergency Vehicle Turn-Out illustration.
- f. All private and common driveways shall be maintained to permit unimpeded access by firefighting and other emergency vehicles in all seasons.

D. Standards Applicable to Common Driveways

1. In addition to the standards for all driveways per III (C), above, common driveways shall also meet the following requirements:
 - a. Common driveways and shared access ways are allowed. No more than four lots may be served by a common driveway.
 - b. The width of the common driveway surface shall be eighteen (18) feet, except where the drive serves only two lots; the width may be reduced to 16' feet. All common driveways longer than 500 feet shall have 15-foot-wide by 50-foot-long emergency pull-offs as per NY State Code. See Diagram 3 – Emergency Vehicle Turn-Out Illustration.
 - c. The slope or grade of a common drive shall not exceed on average 10%. Short sections not exceeding 200 feet may be up to 12% grade.
 - d. Alignment and sight distances should be sufficient to support a designed speed of fifteen (15) mph and the minimum roadway curvature at the point of the driveway intersection shall be sufficient for an emergency vehicle to negotiate, generally no less than a radius of forty (40) feet.
 - e. The common driveway shall lie entirely within the lots being served.
 - f. Common driveways shall be constructed of 12 inches of compacted run of bank (ROB) gravel or higher quality material laid on soil stabilization fabric. The top surface shall be crowned to shed runoff.
 - g. Drainage shall be adequate to dispose of surface runoff. Culverts shall be installed as necessary by the design engineer. Any additional storm drainage generated by the new driveway shall not run on to any adjacent property, onto the adjoining road, and to the extent possible, shall be recharged on-site. See footnote 1.
 - h. There shall be a minimum of two hundred (200) feet between entrances of any two common driveways onto any road.
 - i. The common driveway shall have adequate sight distance at its intersection with the public roadway and shall not create traffic (or pedestrian) safety hazards to its users or the public.

- j. The common driveway shall provide the only vehicular egress/ access to the lots being serviced by it, and this shall be so stated in the deeds to the subject lots.
- k. No common driveway shall be extended or connected to any other way other than the approved point of intersection with the street providing frontage to the development.
- l. All lots to be served by a common driveway must meet the requirements of a lot, and dimensional requirements, as defined in the Zoning Law.
- m. Each landowner served by the common driveway shall be jointly and severally responsible and liable for the repair and maintenance of all portions of the common driveway, and utilities contained within, to which more than one landowner holds a Right-of Way. All private access ways shall be maintained to permit unimpeded access by firefighting and other emergency vehicles in all seasons. The Town shall not be responsible for any repairs or maintenance of any common driveway. Specific responsibilities shall be stipulated in a covenant included in the deed for each property served by the driveway. Such covenant and maintenance agreement shall be entered into between the owners and shall be filed with the Town in a form acceptable to the Planning Board and Town Attorney.
- n. A common driveway shall not be approved until the design approval(s) and agreement(s), a declaration of covenants, easements, and restrictions (for the use and maintenance of the common driveway) have been approved by the Town Attorney, and the New York State Attorney General's Office.

E. Procedure

1. No new public or private highway, road, or street shall be constructed until design plans, including necessary drainage systems, have been approved by the Town Engineer or designate.
 - a. If any bridge work is required, specifications must be obtained from the Columbia County Department of Public Works Commissioner.
 - b. Intersection plan approval and all necessary permits must be obtained from the proper agency of the governing body maintaining the road intersected.
 - c. Prior to starting excavation, an inspection and approval of the proposed roads and right-of-ways must be made by the Town Highway Superintendent and/or Town Engineer.
 - d. The Planning Board shall be provided with a minimum of ten (10) copies of a certified map made by a licensed land surveyor showing the proposed right-of-ways and any necessary drainage easements together with existing easements/ restrictions.
 - e. Prior to the start of construction, the proposed eighteen foot (18') travelled way, with two foot (2') shoulders on each side shall be laid out with temporary wooden

grade stakes. These stakes shall be placed every fifty feet (50'). All proposed lot entrances shall be marked with stakes. Detailed specifications showing limits of all cuts and fills shall be shown on the subdivision plans and marked on the grade stakes. The aforementioned stakes shall be reviewed and approved by the Town Highway Superintendent and or Town Engineer prior to the beginning of construction.

- f. A set of cross sections of the proposed road section and its relationship to the existing ground shall be provided for the Town Highway Superintendent and/or Town Engineer. Cross sections shall be developed at a seventy-five-foot (75') interval and at stations where abrupt changes in topography occur. Any areas requiring more than a fifty-foot (50') right-of-way shall be noted on the subdivision plans and cross sections.

F. Right-of-Way

The rights-of-way for all local highways, roads and streets shall be a minimum of fifty feet (50') in width at all points. The Town Highway Superintendent and/or Town Engineer may require additional width or drainage way requirements.

G. Pavement Widths

1. The paved section of any local highway, road or street shall be not less than eighteen feet in width at all points, unless otherwise directed by the Town Engineer or designate.
2. All highways, roads, and streets shall be centered in the right- of-way, unless otherwise specified by the Planning Board.

H. Utilities in Streets

The Planning Board shall, wherever possible, require that underground utilities be placed in the street right-of-way between the paved roadway and street line to simplify location and repair of lines when they require attention. The subdivider shall install underground service connections to the property line of each lot within the subdivision for such required utilities before the street is paved.

All underground utilities which are to be in the right-of-way, including water, sewer, drain, gas, electricity, telephone, cable television, including junction boxes, riser, manholes, catch basins, and all pole boxes, shall be completely installed prior to the construction of the sub-base. When underground utilities must cross the road, they shall be run through conduit for electric and plastic for all other utilities, so removal and repairs may be made without disturbing the road. All excavations shall be suitably firmed and tamped with vibratory tampers. All utility lines shall be buried a minimum of thirty inches (30") to the top of the pipes and cables and eighteen inches (18") to the top of the boxes except for culverts designed to carry storm water. Manhole and catch basin frames shall be a minimum of six inches (6") deep and shall be designed to carry H-20 loading.

I. Utility Easements

Where topography is such as to make impractical the inclusion of utilities within the street right-of-way, perpetual, unobstructed easements at least twenty feet (20') in width shall be otherwise provided with satisfactory access to the street. Wherever possible, easements shall be continuous from block to block and present as few irregularities as possible. Such easements shall be cleared and graded as required.

J. Clearing of Trees and Brush

All trees shall be cleared at a minimum distance of eight feet (8') on each side of the proposed roadway (total thirty-four feet (34') for an eighteen-foot (18') travel way) and all brush throughout the required right-of-way. The clearing shall be minimized outside the thirty-six feet distance to preserve vegetation and rural character to the maximum amount practical. On curves, an additional amount shall be cleared wherever necessary to maintain a minimum visibility of one hundred fifty feet (150') at the paving edge along the inside of the curve. The Town Highway Superintendent and/or Town Engineer or designate may require more stringent clearing or may waive completely the requirement of clearing certain trees within the right-of-way. All debris must be disposed of in a legally, environmentally safe manner at the owner's or developer's expense.

K. Rough Grading

1. All topsoil shall be stripped from the bed of the proposed paved section, shoulder section and under the width of all fills. All stumps, loose stones, debris and brush shall be removed from beneath the travelled way, eighteen feet (18') each side of centerline, and the shoulder to a depth of two feet (2') below the finished grade.
2. The subgrade shall be prepared by excavating and/or filling, removing unstable materials and replacing them with a foundation course, as required by the Town Highway Superintendent, and thoroughly compacted. Material to be used in fill sections shall consist of run-of-bank material free from all organic material, as approved by the Town Highway Superintendent.
3. Prior to sub-base placement, a geotextile fabric (Exxon GTF 200 or equal) shall, as required by the Town Engineer, be placed in accordance with Section 207-Geotextile-of the New York State Department of Transportation Standard Specification Manual (current edition).
4. Embankments should be no steeper than four horizontal to one vertical (4:1). Steeper embankments require approval of the Town Engineer.
5. Excavated slopes should be no steeper than three horizontal to one vertical (3:1). Every effort shall be made to blend in cuts and fills with the adjacent properties (even to the extent of cutting and filling out of right-of-ways prior to sale of lots).
6. Maximum centerline grades of streets shall not exceed ten (10%) except at intersections

where the intersection grade shall not exceed a two percent (2%) grade in the first fifty feet (50') from such intersection.

7. All changes in grade shall be connected by vertical curves of such length and radius as meet with the approval of the Town Highway Superintendent and/or Town Engineer so that clear visibility shall be provided for a safe distance.

L. Sub-base

1. DESCRIPTION: This item shall consist of a sub-base course composed of NYS DOT gravel or crushed stone meeting NYS DOT Item No. 08304.11 designation, laid on a properly prepared subgrade to a finished thickness of not less than twelve inches (12") followed by a six inch (6") finished course composed of fine gravel meeting NYS DOT Type 4 specifications and shall conform to the lines, grades and typical cross section as shown on the approved drawings.
 - a. Total thickness of the rolled, compacted and finished sub-base course shall not be less than eighteen inches (18").
 - b. All culverts within the road area must be completed and proper drainage provided before any sub-base aggregate is placed upon the subgrade.
 - c. Equipment or materials may be substituted upon approval of Town Engineer and/or Town Highway Superintendent.
2. MATERIALS: All materials shall be secured from approved, legal sources. The gravel or broken stone shall consist of clean, durable, uniform quality and grading and shall be free from thin or elongated pieces, soft or disintegrated stone, soil or other objectionable features.
3. CONSTRUCTION METHODS
 - a. Preparation of the subgrade - All boulders, organic material, soft clay, spongy material and other objectionable material shall be removed and replaced with approved material. The subgrade shall then be properly shaped, rolled and uniformly compacted to the approved cross section and grade.
 - b. Placing and rolling aggregates -All sub-base material shall be deposited and spread by means of spreader boxes or approved mechanical equipment or from moving vehicle equipped to distribute the gravel or crushed stone in a uniform layer. Each layer shall not be less than six inches (6") in thickness after compaction and shall be constructed as follows:
 1. Immediately following the spreading of the gravel or coarse aggregate, all material placed shall be compacted to the full width by rolling with a minimum ten (10) ton vibrating roller. At all places not accessible to the roller, the sub-base course material shall be tamped thoroughly with mechanical tampers or with hand tampers.

2. If any irregularities or depressions appear while rolling, they should be remedied by loosening the material at these places and by removing or adding gravel or coarse aggregate, as may be required, after which the area disturbed shall be rolled until compacted satisfactorily to a smooth and uniform surface.
 3. If subgrade material shall become churned into or mixed with the sub-base course, such mixture of subgrade material and gravel or crushed stone shall be removed and replaced with gravel or clean aggregate of the proper size and compacted as specified above.
- c. Seasonal limits: No sub-base course material shall be deposited or shaped when the subgrade is frozen, thawing, or during unfavorable weather conditions.
 - d. Protection of sub-base course: After completion of sub-base course, as specified above, no traffic shall be allowed over its surface other than that absolutely necessary to haul material for the surface course.

M. Pavement

1. All paving materials shall conform to the latest edition of New York State Department of Transportation Standard Specifications in quality, application, and construction.
2. In preparation for paving, the eighteen foot (18') minimum travelway shall be free of any holes, dips, or bumps, etc.
3. The two-course pavement shall consist of two and one-half inches (2 1/2") compacted NYS DOT item 403.13 asphalt-concrete type 3 binder, and one and one-half inches (1 1/2") compacted NYS DOT item 403.17 asphalt-concrete type 6F course (high friction).
4. Shoulders shall be compacted gravel or crushed stone, not less than two feet (2') in width or as may be required by the Town Engineer. Shoulders shall be a slope of five-eighths inch (5/8") per one foot (1').

N. Roadway Drainage

1. A complete system of surface drainage shall be installed to dispose of stormwater for any new public or private road (See footnote 1).

When discharge of stormwater shall be onto, upon or through private property, proper easements shall be granted and shall convey the perpetual right to discharge stormwater runoff from the highway and from the surrounding areas onto and over the affected premises by means of pipes, culverts or ditches, or a combination thereof, together with the right to enter such premises for the purpose of making such installations and doing such maintenance work as deemed necessary to adequately drain the highway and the surrounding area. Where a drainage easement discharges onto or terminates at the property of a third party, the consent for an easement, properly executed, to channel or discharge stormwater from such third party must be obtained by

the owner of the road or street. All drainage easements shall be a minimum of twenty feet (20') in width. The center of all ditches with a (0.5) percent to (4.99) percent grade shall have a nine-foot (9') setback from the edge of the shoulder of the road. The center of all ditches with a five percent (5%) to ten percent (10%) grade shall have a nine and one-half foot (9 1/2') setback from the edge of the shoulder of the road to allow for a three foot (3') "V" on each side of the center of the ditch. The "V" is to be filled with a minimum of six inches (6") of gabion stone to prevent erosion. On a ten percent (10%) grade, road ditches shall have a water run-off a minimum of every one hundred feet (100') to insure proper drainage from the ditches. The use of check dams shall be considered for placement in road ditches and stream channels where diversion of water is restricted. See Diagram No. 1- Town Road Cross Sections - for ditch details.

2. Watercourses

Where a watercourse separates a proposed street from abutting property, provision shall be made for access to all lots by means of culverts or other structures of design approved by the Town Engineer.

Where a subdivision is traversed by a watercourse, drainage way, channel or stream, there shall be provided a stormwater easement or drainage right-of-way as required by the Town Engineer, and in no case less than twenty feet (20') in width.

3. All culverts shall be designed to handle a storm of twenty-five (25) years frequency, unless otherwise required by the Planning Board. Culvert pipes shall be reinforced concrete pipe (RCP) or High Density Polyethylene Pipe (HDPP), not less than twelve inches (12") diameter. Pipes shall be installed in a straight line and at a uniform rate of grade between points to match grade and direction of drainage swales. Any changes in grade or direction will require the placement of a catch basin. All culvert head walls shall be laid-up stone and concrete or gabion baskets filled with gabion stone. No culvert head walls shall extend above the shoulder of the road. Metal flared culvert end sections may be installed in lieu of headwalls at the discretion of the Town Engineer. A cross section view of each culvert crossing under all proposed subdivision roads shall be included in the final plans.
4. If underdrainage is needed, a complete set of plans shall be submitted to the Town Engineer for approval. Underdrainage shall be a minimum of two and one half feet (2 1/2') below subgrade surface and shall be at least six inches (6") diameter ADS perforated pipe or equivalent with proper manufactured couplings. Underdrainage shall have a minimum of six inches (6') of three- quarter inch (3/4') drainage stone completely surrounding the pipe, under laid with Filter Fabric (Exxon GTF 125D or equal) and lapped a minimum of twelve inches (12') on top of the underdrain stone. If an open ditch is required due to excessive run-off, one and one half inch (1 1/2") quarry stone shall be installed from the level of the 3/4-inch stone and filled to the grade of the ditch. Underdrainage pipe shall have a minimum pitch of six inches (6") in a hundred-foot (100') span.

5. All culverts shall be a minimum of twelve inches (12") below subgrade surface and shall have a minimum of six inches (6") of bank run gravel completely surrounding the pipe.

O. Delineators

1. Delineators shall be placed in accordance with the minimum standards of section 646 - Delineators- of the current edition of the New York Department of Transportation Standard Specifications and Subchapter G - part 291 - Delineation Device - of the New York State Manual of Uniform Traffic Control Devices. Additional delineators shall be placed by order of the Town Highway Superintendent.
2. All culverts, driveways, and curves shall be marked with plowable markers. Markers shall be a maximum of twenty-five feet (25') apart on curves and straightaways shall have markers every one hundred twenty-five feet (125') where possible to mark the shoulder of the road, Marker type shall be approved by the Town Highway Superintendent.

P. Finish Grade and Seeding

All slopes shall be finished graded from the edge of the shoulder to the toe or top of the slope with a minimum of four inches (4") of topsoil and shall be sown with hearty grass seed and mulched in sufficient quantity to produce turf that will stabilize the slope unless otherwise directed by the Town Highway Superintendent.

Streets shall be graded and improved with pavements, curbs, and gutters, sidewalks, storm drainage facilities, water mains, sewers, street lights and signs, street trees and fire hydrants, except - where waivers may be requested, and the Planning Board may waive subject to appropriate conditions, such improvements as it considers may be omitted without jeopardy to the public health, safety, and general welfare. Pedestrian easements shall be improved as required by the Town Engineer. Such grading and improvements shall be approved as to design and specifications by the Town Engineer.

Q. Monuments

Sufficiently reinforced concrete or granite markers, at least four inches (4") square on top and four and one half feet (4 1/2') long must be set located at all changes in direction of right-of-ways, including points of tangent of curves and points of tangent at corners, and at the intersection of lot lines with right-of-ways. Monuments shall also be placed every one hundred feet (100') on tangents and every fifty feet (50') on curves.

R. Inspection

1. Agents of the Town shall have access to all parts of the work while under construction at all times. No portion of the work which will not be exposed upon final completion shall be covered until reasonable opportunity for inspection after written notice has been given. Approval under these specifications shall be made by the Town Engineer.
2. It shall be required at the owner's or developer's expense that a New York State licensed

professional engineer certify to the Planning Board and the Town Engineer that the roads have been constructed true to line and grade and that the drainage system has been constructed in accordance with the road construction plans. A reproducible copy and four (4) prints of the plans for any drainage system shall be submitted to the Town Engineer upon completion of the road and utility work unless the supplying of same is specifically waived in writing by the Town Engineer.

S. Completion

Approved road sign names shall be installed when the road has been completed. Mailboxes shall be installed in accordance with the U.S. Postal regulations. The mailbox pull-off shall be topped with the same material used on the travelled way of the road and the ditch line shall be set back four feet (4') from the edge of the pull-off or the water may be piped under the pull-off with approved culverts. Any additional right-of-way necessary for the construction of mailbox clusters shall be provided by the developer and shown on the subdivision plans.

T. Curve Radii

In general, street lines within a block, deflecting from each other at any one point by more than ten degrees (10°), shall be connected with a curve, the radius of which for the centerline of street shall not be less than four hundred feet (400') on major roads, two hundred feet (200') on collector streets, and one hundred feet (100') on roads serving four or fewer lots. See Zoning Law Article V, (C) (9c) and (9e) for curve radii standards for conservation subdivision.

U. Service Streets of Loading Space in Commercial Development

Paved rear service streets of not less than twenty feet (20') in width, or in lieu thereof, adequate off-street loading space, suitably surfaced, shall be provided in connection with lots designed for commercial use.

V. Free Flow of Vehicular Traffic Abutting Commercial Developments

In front of areas used and zoned for commercial use, or where a change of zoning to a zone which permits commercial use is contemplated, the street width shall be increased by such amount on each side as may be deemed necessary by the Planning Board to assure the free flow of through traffic without interference by parked or parking vehicles, and to provide adequate and safe parking space for such commercial or business district.

W. Fire Safety and Street Lighting

1. Installation of fire hydrants shall be in conformity with all requirements of standard thread and nut as specified by the New York Fire Insurance Rating Organization and the Division of Fire Safety of the State of New York and conform to town equipment. Stand pipes are necessary and must be designed according to the Town Engineer and/or Fire Department. In subdivisions with no central water system, dry hydrants and ponds shall be incorporated into the design of the subdivision.
2. Lighting facilities shall be in conformance with the lighting system of the Town. Such

lighting standards and fixtures shall be installed after approval by the appropriate power company and the authorized Town electrical inspector.

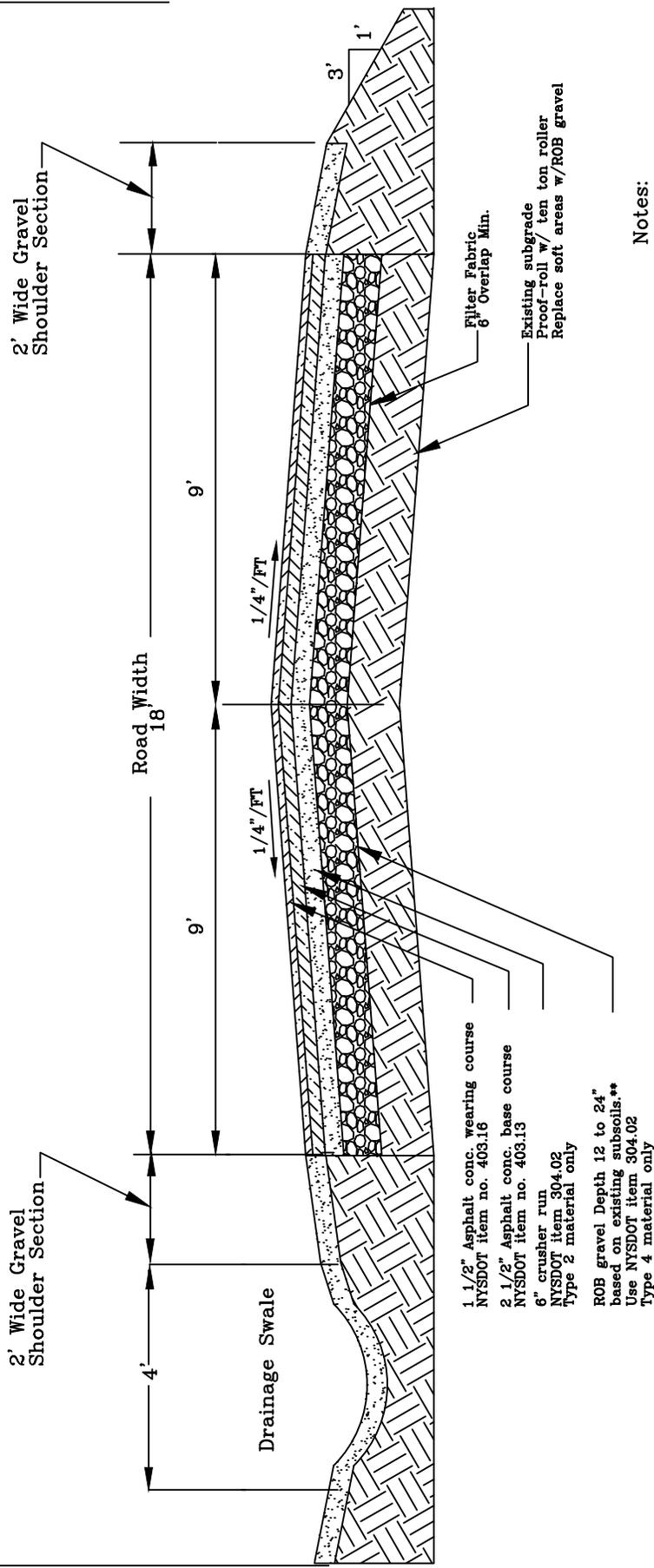
X. Street Names

1. All street names shown on a Preliminary Plat or Subdivision Plat shall be approved by the Planning Board. In general, streets shall have names and not numbers or letters.
2. Proposed street names shall be substantially different so as not to be confused in sound or spelling with present names except that streets that join or are in alignment with streets of an abutting or neighboring property shall bear the same name. Generally, no street should change direction by 90 degrees or more without a change in street name.

Y. Performance Bond

Performance Bonds are required at the discretion of the Planning Board for all subdivision roads and related utilities. The bond shall be in a form acceptable to the Town Attorney.

R.O.W. Width 50'



Notes:

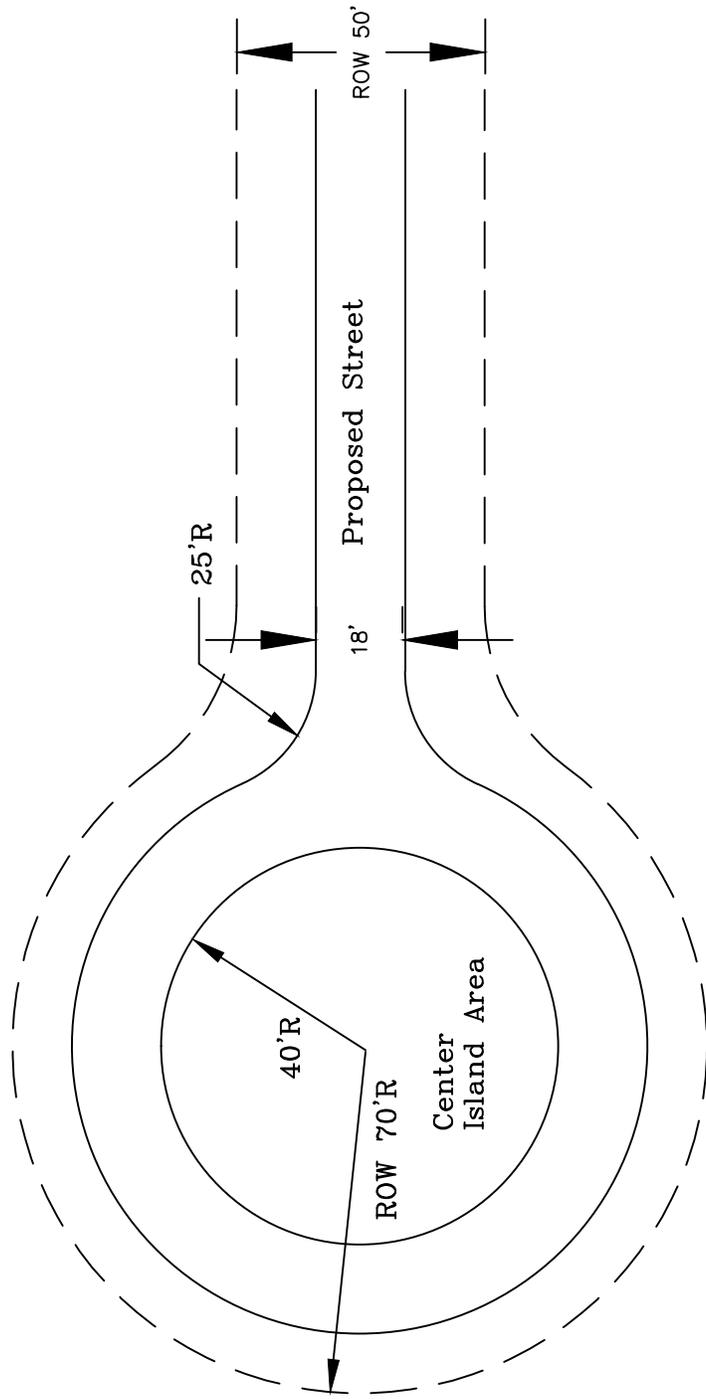
1. See Town Code for additional design Standards
2. Plan and profiles to be prepared and submitted for approval. Scale not to exceed 1" = 50'
3. NYSDOT Guide rail required where side slopes exceed 1 on 3

Diagram 1 Town Road Cross-section

Based on Various Sections
Of Town Code

January 2017 Edition

* Compact to 95%
Standard Proctor Density
** Depth varies
as needed



NOTE: Turn outs for emergency vehicles are required by NYS Building code for all private roads and driveways over 500 feet long. One turnout for each 500 feet. Turnouts not required on roads 20 feet wide or wider.

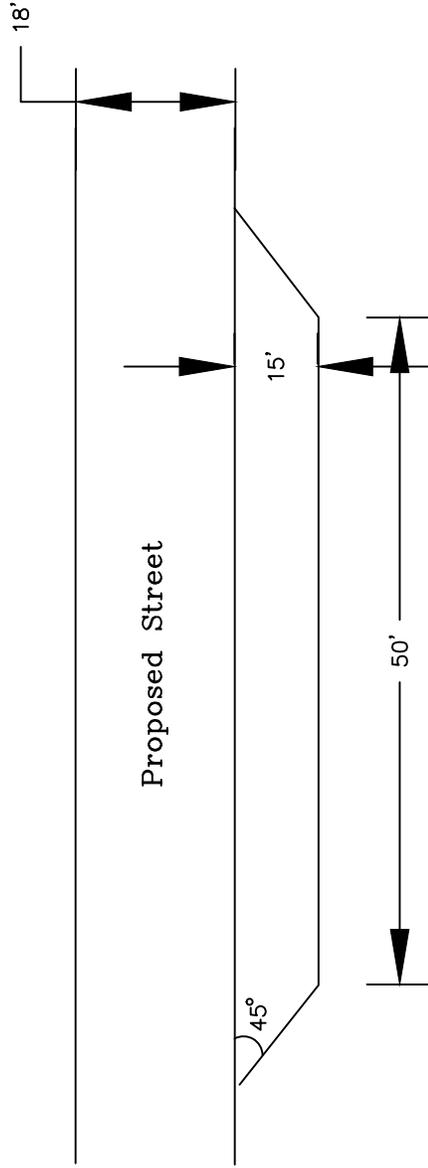


Diagram 3
Emergency Vehicle Turn-outs
Based on Various Sections
Of Town Code
January 2017 Edition

SECTION III - DEFINITIONS

Dead End or Cul-de-Sac – A road with a single common ingress and egress.

Erosion and Sedimentation Control Plan: A plan used to control erosion and stormwater discharges during construction.

Front Loaded Road means a street or road designed so that all homes are located on only one side to afford each residence maximum viewing of open space lands or other features. This contrasts to a double loaded street or road where houses are placed on both sides.

Hamlet - Means a populated area within a town that is not part of an incorporated village. Characterized by densely situated homes and small businesses surrounded by area farms and open space.

Major Subdivision means a subdivision, created after February 21, 2013, not classified as a minor subdivision, including but not limited to subdivisions of more than four (4) lots, a planned development, or any size subdivision requiring any new street or extension of water or sewer utilities, or the creation of any public improvements, or any other subdivision classified as major by the Planning Board because of its probable major impact on the surrounding areas. When there have been one to four minor subdivisions of a parcel of land after February 21, 2013, the splitting of a fifth lot shall also result in classification of that subdivision as a major subdivision.

Pervious Surface means any surface where water is allowed to seep through to the ground.

Street Pavement - Means the wearing or exposed surface of the roadway used by vehicular traffic.

Traditional Neighborhood is a development pattern that reflects the characteristics of small, older communities of the late 19th and early 20th centuries. Traditional neighborhood designs result in communities that are characterized by mixed of housing types, small scale non-retail commercial businesses, grid street patterns, pedestrian circulation, intensively-used open spaces, and buildings with consistent architectural character.

Road Hierarchy Definitions

Access, Public: Any street, road, intersection, curb cut or other location that offers the general public a way or means of approach to provide vehicular or pedestrian physical entrance to a property.

Shared Access Way: A means of physical approach for vehicular or pedestrian traffic into or out of a location that is shared and used by one or more different parcels of land.

Driveway: An entrance and exit used by vehicular traffic to and from lands abutting a State, County, or Town road, whether public or private as defined herein, built according to Town, County or State driveway specifications; where it is possible to park completely off the street; and which is open only for private use except by permission of the owner of such private property. A driveway remains private property.

Common Driveway: a driveway serving two to four lots; designed, built or regulated by the Town of Ancram, County, or State of New York driveway specifications; and that is maintained by a private entity through an agreement of all interested parties.

Right of Way: a strip of land acquired by reservation, dedication, prescription, or condemnation and intended to be occupied by a street, crosswalk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary storm sewer, or other similar uses and that gives the right of one to pass over the property of another.

Road: A strip of land that provides a channel for vehicular circulation serving more than four lots and can include space for utilities, sidewalks, walkways, and drainage.

Road, Public: Any street or road built to meet the Town of Ancram specifications for a public road and dedicated for use by the public; accepted as a public road by official action by the Town Board; shown on a plat approved pursuant to this subdivision law or on an Official Map of the Town of Ancram, if one exists; and that is maintained by the Town.

Road, Private: Any street or road serving more than four lots; designed, built and regulated by the Town of Ancram road specifications; not dedicated and not accepted by the Town Board for use by the public; and that is maintained by a private entity through an agreement of all interested parties. A private road remains private property.

Street – Synonymous with road. The following definitions further define streets or roads based on the number of parcels served.

Minor Street - Means a private or public street or road intended to serve primarily as an access to abutting properties within a subdivision.

Collector Street - Means a public or private street or road which serves or is designed to serve as a traffic way for a neighborhood of four (4) or more parcels or as a feeder to a major street.

Major Street - Means a public street or road which serves or is designed to serve heavy flows of traffic and which is used primarily as a route for traffic between communities, between subdivisions, and/or other heavy traffic generating areas.

SECTION IV - SEPARABILITY, EFFECTIVE DATE and REPEALER

A. Separability

Should any section or provision of the Regulations contained herein or as amended hereafter be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the Regulation as a whole or any part thereof other than the part declared to be invalid.

B. Effective Date

This law shall become effective upon filing with the New York State Department of State.

C. Repealer

The adoption of this Local Law shall repeal and replace the entirety of the Town's existing Highway Construction Standards, which standards were appended to the Land Subdivision Regulations adopted as Local Law # 1 of 2015, and any Town of Ancram Highway Construction Standards existing prior thereto. Upon the adoption of this Local Law, any previously existing Town Highway Construction Standards shall no longer be in force and effect.