

## **Part 3 -- ROADS AND UTILITIES STANDARDS**

### **301 General Requirements**

#### **301.1 Purpose and Intent of Design Standards for Streets**

All platted streets shall be of sufficient width and construction as detailed in this section, and shall be suitably located so as to: conform to applicable provisions of the Master Plan; safely and conveniently accommodate transportation and access needs of the public; and provide reliable access for firefighting and other essential public and private services.

#### **301.2 Arrangement of Streets**

The horizontal alignment of streets shall be platted so as to: comprise a convenient transportation system; provide for the continuation of streets to adjoining neighborhoods and collector streets; provide for future right-of-way extensions to undeveloped properties if deemed appropriate by the Planning Board; and to facilitate efficient future extensions of public and private utilities. Streets shall be arranged to provide maximum separation of through and local traffic and to discourage through traffic in residential neighborhoods.

#### **301.3 Relationship of Streets to Topography**

Streets within any platted subdivision shall be designed to form a logical relationship between the vertical and horizontal alignments of such streets and the topography of adjoining land. Specifically, the horizontal and vertical alignment of platted streets shall: avoid the need for cut and fill depths, which, in the opinion of the Planning Board, are unreasonably severe; and shall afford a minimum of one location where safe and convenient driveway access can be achieved along the frontage of each platted lot without need for excessive excavation.

#### **301.4 Dedication of Supplemental Right-of-way**

In the Commercial and Industrial Zoning Districts, where land which is the subject of an application for approval under these Regulations fronts upon an existing Class V public street having a right-of-way width less than that required, based upon the classification of that street, under these Regulations, the applicant shall dedicate supplemental right-of-way if needed to create a continuous public right-of-way having a dimension equal to not less than one-half the full right-of-way width required under these Regulations, as measured from the occupied centerline of such street to the front line of the subject land.

#### **301.5 Street Names**

Proposed street names shall neither duplicate nor be phonetically similar to existing street names within the Town of Amherst. Street names shall be compliant with E-911 standards. Street names shall be subject to review and comment by the Planning Board, Amherst Police Department and Amherst Fire Department and approval by the Board of Selectmen.

#### **301.6 Adoption of Reference Specification**

All workmanship and materials incorporated into the construction of streets and related improvements shall conform to applicable requirements of Standard Specifications for Road and

Bridge Construction, latest edition, as published and amended by the New Hampshire Department of Transportation unless otherwise specified in these Regulations.

## **302 Geometric Design Standards for Streets**

### **302.1 Classification of Streets**

For the purposes of these Regulations, all streets shall be classified based upon use, as follows:

- Residential – 1: A low volume residential street which accommodates an average daily traffic volume (ADT) of not more than 400 vehicles per day (VPD);
- Residential – 2: A residential street which accommodates an ADT of 401 to 1,000 VPD;
- Non-Residential: A street whose primary function is to provide frontage and local access to non-residential properties in a business or industrial park subdivision;
- Collector: A street which accommodates an ADT of 1,001 to 6,000 VPD; and
- Arterial: A street which accommodates an ADT of more than 6,000 VPD.

### **302.2 Table of Geometric Design Standards for Streets**

The Table of Geometric Design Standards for Streets, which is a part of these Regulations, provides design values for common geometric design parameters for streets including, but not limited to: (a) right-of-way and pavement width; (b) vertical alignment; (c) horizontal alignment; and (d) road base material and pavement thickness. The values presented in this Table shall serve as design criteria for all platted streets classified as Residential -1, Residential – 2, Non-Residential, or Collector. Design criteria for Arterial Streets shall be derived from A Policy on Geometric Design of Streets and Highways, latest edition, as published by the American Association of State Highway & Transportation Officials (AASHTO).

### **302.3 Typical Cross-Section for Construction of Streets**

The Typical Cross-Section for Construction of Streets (Figure 1), which is a part of these Regulations, shall be recognized as the standard typical cross-section for Residential – 1, Residential – 2, Non-Residential and Collector Street construction. Several minimum dimensions specified on Figure 1 vary with street classification and are therefore specified in the Table of Geometric Design Standards for Streets. All street construction shall conform to the standards specified on the Typical Cross-Section for Construction of Streets unless otherwise approved by the Planning Board. As an alternative, the Planning Board may, at its option, permit Residential-1 streets to be constructed in accordance with the Alternative Typical Cross-Section for Construction of Streets (Figure 2) provided the Board determines or anticipates: (a) the average daily traffic volume to be served by the street(s) in question will not exceed 400 vehicles per day; (b) the construction will satisfy the requirements of Sections 5.1.1 through 5.1.3 of these Regulations; and (c) construction in accordance with Figure 2 will better facilitate the installation of stormwater management improvements required in order to satisfy the provisions of Section 610.2 of these Regulations.

### **302.4 Design Requirements for Cul-De-Sac Streets**

All permanent dead-end streets shall terminate in a cul-de-sac designed, laid-out and constructed

in accordance with the Typical Permanent Cul-De-Sac detail (Figure 2) contained within these Regulations. The maximum length of any cul-de-sac street, as measured from the occupied centerline of the existing or proposed street to be intersected by said cul-de-sac street to the radius point of the cul-de-sac, shall not generally exceed 1,200-feet; however, the Planning Board may permit the construction of cul-de-sac streets of greater length, providing the applicant has submitted evidence that such an approval will not be contrary to the general health, safety and welfare of residents, and that adequate provision has been made for public safety.

All temporary cul-de-sacs shall be planned, designed and constructed to the same standards as permanent cul-de-sacs unless the Planning Board determines that a subsequent extension of the street in question is imminent. In such instances, the Planning Board may permit the construction of a temporary “hammerhead” style turn-around having dimensions acceptable to the Board. Under no circumstances shall “hammerhead” turn-arounds be allowed as a permanent terminus for a public street.

#### **302.5 Design Requirements for Intersections of Streets**

All intersections of streets shall be designed and constructed in accordance with the following standards:

- A. Not more than two streets shall intersect with a third street at a single point; and those two streets must align such that their respective centerlines intersect with the centerline of the third street at a single point.
- B. Successive intersections on the same side of a single street by two or more subsequent streets shall be separated by a minimum horizontal distance of 600-feet, as measured along the centerline of the intersected street. Successive intersections on opposite sides of a single street by two or more subsequent streets shall be separated by a minimum horizontal distance of 125-feet, as measured along the centerline of the intersected street.
  - 1. The vertical alignment of any street intersecting with a through street at a stop condition shall be such that: (a) the intersecting street slopes away from the through street at a grade of not less than 2-percent and not more than 3-percent for a distance of not less than 50-feet, as measured along the centerline of the intersecting street from the edge of travelled way of the through street; and (b) the maximum grade of the intersecting street does not exceed 3-percent for a distance of 100-feet, as measured along the centerline of the intersecting street, from the edge of travelled way of the through street.
  - 2. Right-of-way lines of intersecting streets shall be joined by curves having a minimum radius of 25-feet. The edges of pavement of intersecting streets shall be joined by curves having a minimum radius of 30-feet unless a larger radius is warranted in order to accommodate vehicular turning movements without encroaching upon an opposing lane of traffic.
- C. A minimum of 335-feet of all-season safe sight distance shall be provided at all intersections of Residential – 1, Residential – 2 and Non-Residential Streets. A minimum of 400-feet of all-season safe sight distance shall be provided at an intersection involving one or more Collector or Arterial Streets.

- D. Signage and pavement markings conforming to recommendations offered in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), as well as street name signs conforming to local design standards, shall be furnished and installed at all intersections of streets.
- E. For reasons of proper night-time intersection recognition and public safety, the Planning Board may require the installation of street lamps at any proposed intersection of streets.

### **302.6 Design Standards Governing the Horizontal and Vertical Alignments of Streets**

- A. Taken together, the horizontal and vertical alignments of Residential – 1, Residential – 2 and Non-Residential Streets shall permit maintenance of not less than 200-feet of stopping sight distance.
- B. Taken together, the horizontal and vertical alignments of a Collector Street shall permit maintenance of not less than 300-feet of stopping sight distance.
- C. All changes in the vertical alignment of streets in excess of 1-percent shall be connected by a vertical curve of a length sufficient to attain the minimum stopping sight distance value specific in the current edition of the AASHTO publication, “Geometric Design of Highways and Streets” (AASHTO Green Book), as applicable.

## **303 Driveway Standards**

- 303.1** Prior to subdivision approval, the applicant shall demonstrate that each platted lot will enjoy at least one location along its frontage where a driveway for access to that lot can be safely accommodated. In order to satisfy this requirement, the plans shall: (a) specify the location, dimensions and design elevations for driveway apron construction on each lot; (b) all season safe intersection sight distance as required in Amherst Driveway Regulations; and c) demonstrate such driveway construction can occur without interfering with utility installations and/or stormwater management improvements.
- 303.2** Refer to Section 3.10, Driveway Regulations for additional requirements.
- 303.3** A Driveway Permit is required for any new permanent or temporary driveway, and for any modification to an existing driveway.

## **304 Street Right-of-Way Monumentation Standards**

Final subdivision plans shall specify granite boundary monuments, measuring not less than 4-inches by 4-inches by 36-inches, shall be installed at all points defining the limits of street right-of-way by or under the supervision of a Licensed Land Surveyor.

## **305 Streetscape Design Standards**

- 305.1** Street Tree Installation Requirements: At locations where subdivision streets are to pass through an open field, or at locations where existing vegetation must be removed in order to complete construction, salt tolerant deciduous street trees, having a minimum caliper diameter of 2 ½-inches at the time of planting, shall be installed along both sides of streets at intervals of not more than 100-feet. All street trees shall be planted at the outer limit of the street right-of-way.
- 305.2** Retention of Existing Stone Walls: The Planning Board may require an applicant to retain or reconstruct existing stone walls forming the limits of existing public right-of-way along the

frontage of a subdivision; and further, may require, as a condition of final subdivision approval, that any rock from existing stone walls, both interior and exterior to the subdivision, which must be removed or otherwise disturbed in order to accommodate street or other infrastructure construction, be salvaged and used in the construction of streetscapes and amenities within the subdivision.

- 305.3** Avoidance of Right-of-Way Obstructions: In all instances, street trees, stone walls, lamp posts, transformers and other utility risers, as well as all other planned above-ground utility installations and aesthetic improvements shall be constructed or installed at or adjacent to the limit right-of-way so as not to interfere with routine maintenance of streets or compromise public safety.

**306 Plans and Data for Final Approval**

- 306.1** Roadway Design Plan & Profile Sheets (for all applications involving the construction of new streets or significant improvement of existing streets), shall contain the following information and be sealed by a Licensed Professional Engineer:
- A. A title block identifying: name and location of proposed subdivision; street name; roadway stationing for the segment of street depicted on each sheet; name & address of consultant; date of preparation & each subsequent revision; and scale (all plans shall be drawn at a scale of 1" = 40' Horiz./1" = 4' Vert., or 1" = 50' Horiz./1" = 5' Vert.);
  - B. A north arrow;
  - C. Limits of existing or proposed right-of-way & corresponding existing and proposed right-of-way monumentation;
  - D. Adjoining lot lines with map & lot number of each platted or existing parcel;
  - E. Two-foot contour interval topography & defined limits of wetland;
  - F. Centerline stationing & horizontal curve geometry;
  - G. Existing & proposed limits of pavement and curbing, including design radii of all curves and flares;
  - H. The location and design elevations of all existing and proposed driveway aprons;
  - I. Two-foot contour interval finish grade contours and finish spot grades, where applicable;
  - J. Existing and proposed drainage improvements, including:
    - 1. Location, diameter, pipe material, design slope, invert elevations & end treatments for all culverts and storm drains;
    - 2. Location (by station & offset), rim & invert elevations of all catch basins, manholes and other proposed drainage structures;
    - 3. Headwalls or flared end sections specified at all culvert and storm drain inlets and outlets;
    - 4. Outlet protection accommodations where warranted;
    - 5. Existing & proposed drainage easements;
    - 6. Location & design of stormwater treatment provisions;
    - 7. Location & design of stormwater detention or retention provisions where warranted;
    - 8. Underdrain where warranted; and

- 9. The location and type of temporary and permanent erosion & sedimentation control measures where warranted.
- K. A minimum of one benchmark with elevation per plan sheet;
- L. Roadway profiles depicting:
  - 1. Stationing;
  - 2. Existing & proposed elevations at 50-foot stations, as well as at all PVI's, PVC's & PVT's;
  - 3. Existing & proposed roadway centerline profiles;
  - 4. Vertical curve design data, including station and elevation of all crest and sag points; and
  - 5. Existing & proposed drainage and utility improvements.
- M. Location, diameter & pipe material of existing & proposed water main and sanitary sewer, if any;
- N. Location & type of existing & proposed above and below ground utilities;
- O. Location (by station & offset) of proposed guardrail and end units;
- P. A note specifying: "All workmanship and materials incorporated into this work shall conform to applicable requirements of Standard Specifications for Road and Bridge Construction, as published by the New Hampshire Department of Transportation, latest edition; and the Amherst Subdivision Regulations";
- Q. Pavement markings and traffic signage per MUTCD; and
- R. Test pits, in sufficient number and location along the centerline of proposed streets, to identify the depth of bedrock and seasonal high groundwater.

**306.2 Roadway Cross-Sections** (for all applications involving the design of new or improved streets) at 50-foot intervals, culvert crossings and special points of interest; drawn at a scale of 1" = 5' or 1" = 10' Horiz. & Vert.; sealed by a Licensed Professional Engineer and showing:

- A. Existing & proposed centerline elevations;
- B. Limits of proposed pavement, curbing, crushed gravel, gravel, sand, embankment slopes, right-of-way & easements;
- C. Roadway & embankment slopes;
- D. Underdrain, drainage & utility improvements; and
- E. Guardrail where warranted.
- F. Construction Detail Drawings, sealed by a Licensed Professional Engineer, for the following elements of construction, as applicable:
  - 1. Typical roadway cross-section(s);
  - 2. Driveway apron construction;
  - 3. Curbing installation;
  - 4. Guardrail & terminal end-unit installation;
  - 5. Underdrain installation;

6. All drainage structures, as applicable (catch basins, drain manholes, outlet structures, etc.);
  7. Headwalls;
  8. Outlet protection;
  9. Treatment swale & stormwater detention/retention basin construction;
  10. Utility & drainage trench construction;
  11. Erosion & sedimentation control;
  12. Fire protection;
  13. Utility construction;
  14. Traffic control signage and pavement markings;
  15. Turf establishment; and
  16. Other project specific improvements, if any.
- G. A Stormwater Drainage Report, together with corresponding Drainage Area Plans and Hydrologic Soil Group Plans, prepared in accordance with the requirements of the Stormwater Regulations, shall be submitted together with any application for subdivision approval under these Regulations involving the construction of new streets.

**307 Street Excavation Permits**

- A. No person shall make or cause any excavation within the right-of-way of any public street without first obtaining an excavation permit from the Director of Public Works or its designee (hereinafter called the Enforcement Authority) as provided in this ordinance.
- B. Application for an excavation permit shall be made two business days (at least 48 hours) prior to the start of work on a form provided by the Enforcement Authority.
- C. Upon application the applicant shall pay a fee to the Town as indicated in the regulations.
- D. The Enforcement Authority shall not issue such excavation permit unless the applicant meets all requirements of the regulations.
- E. Any violation of this ordinance shall be punishable by a fine not to exceed \$1,000.00. Each day a violation continues shall be deemed a separate offense. Fines assessed hereunder shall be payable to the Town for the benefit of the general fund.

**308 Street Excavation Regulations**

**308.1 General**

- A. Street Excavation permits are issued by the Department of Public Works of the Town of Amherst.
- B. Anyone wishing to open or excavate any street, must obtain a permit on a form provided by the Department of Public Works.
- C. No excavation shall remain open during non-working hours, nor shall be left unprotected at any time.
- D. Directional boring of utilities to minimize street excavations is encouraged.

**308.2 Excavation Permit Fees and Requirements.** All applications for a permit to excavate in, or open a public right-of-way or public property, shall include a fee for each permit applied for. The fee for an excavation permit, payable in advance, is as follows:

- A. An administrative and inspection charge of \$200.00 per permit for all excavations within the public right-of-way or on Town property.
- B. A street damage charge of \$5.00 per square foot of excavation occurring within the paved portions of the public right-of-way or on Town property.
- C. An infrastructure damage charge of \$1.50 per square foot of excavation occurring within the greenbelt or unpaved sidewalk areas of the public right-of-way or on unpaved portions of Town Property.
- D. All street damage and infrastructure damage charges shall be based upon final measurements of patches or disturbances subject to verification of actual excavation impacts by the Town's inspection representatives.
- E. If a contractor disputes a final measurement provided by the Town he may request to meet with the inspector on site to re-measure the patch. If the Town and the Contractor still cannot agree on the patch size, the Contractor may elect to hire at his own cost, a Licensed Land Surveyor to provide the patch size measurement. The Town may elect to agree with the survey provided or conduct its own.
- F. Street excavation permit fees may be annually adjusted by Board of Selectmen resolution on July 1st (start of fiscal year).
- G. The fees for the administrative and inspection charge of the permit may be increased if the work results in additional administrative and inspection time required to complete the work. The base administrative and inspection charge includes 2 hours of onsite inspection. Additional charges will be billed and due upon presentation.
- H. The Public Works Director reserves the right to allow alternative means of repair or restoration or other roadway improvements in lieu of the required infrastructure damage charge.
- I. A Late Permit fee of Two Hundred Dollars (\$200.00), will be charged if any excavation is begun without a Street Excavation Permit (other than those approved as an Emergency Excavation) which is in effect at the time of the excavation.
- J. In the event of an emergency, excavations or closing of Town streets due to a utility leak or like situation, the Police Department, Fire Department and Department of Public Works shall be notified immediately by telephone. At the earliest opportunity available, a representative of the Permittee shall obtain a regular permit at the office of the Department of Public Works.
- K. If work is done on a street that is currently under moratorium as described in the Street Restoration and Patching Guidelines, the Permittee will be responsible for paying an additional pavement life reduction factor to be billed and due upon presentation. This factor shall be assessed as follows:
  - Street pavement less than three (3) years old: two (2) times the street damage charge.
  - Street pavement of a reconstructed street less than five (5) years old: three (3) times the street damage charge.



- L. Inspection Agreement. At the discretion of the Director of Public Works, the Contractor may be required to obtain a third party inspection agreement for inspection of the work.
- M. Work authorized by a permit shall be performed between 7:00a.m. and 6:00 p.m., Monday through Friday from April 1st through November 15th, unless the permittee obtains written consent from the Public Works Director to do the work during another time. Such permission shall be granted only in case of an emergency or in the event the work authorized by the permit is to be performed in traffic congested areas. In case of an emergency, the "Emergency Provisions" section of this regulation shall apply.
- N. The permittee shall notify the Department of Public Works the day construction has begun.
- O. If the construction ceases for more than a day, the Contractor must notify the Department of Public Works in advance, when the work will resume. Failure to do so may cause work to be redone so inspections can be performed.
- P. The location of all utility facilities shall be determined sufficiently ahead of excavation work to avoid damage to those facilities and permit their relocation if necessary. The permittee shall, as specified by New Hampshire Law, RSA 374:51 and 374:55, call DIG SAFE at (1-888-344-7233) at least 72 hours prior to any excavation. The permittee shall also notify the Amherst Police and Amherst Fire Department.
- Q. The permit shall be kept with the foreman at the place where the work is being performed and shall be produced for examination upon request of any member or officer of the Department of Public Works or any police officer of the Town of Amherst.
- R. The Public Works Director may revoke any permit issued under this regulation at any time.

### **308.3 Encumbrances and Traffic Control**

- A. No more than 200 linear feet shall be opened in any street at one time, except by special permission of the Department of Public Works. No opening or excavation in any street shall extend beyond the centerline of the street before being backfilled and the surface of the street made passable to traffic.
- B. A Street Excavation permit gives the right to encumber a roadway with proper traffic control, as long as a minimum of one lane of traffic (11 feet wide) is provided on the street at all times. Access shall be provided to all properties at night and on weekends and to all places of business at all times.
- C. Any work restricting complete traffic movement must have a "Street Closure Permit" in addition to the Street Excavation permit. This Street Closure Permit will only be issued with an approved traffic control plan. If a complete street closure is necessary, at least seven (7) working days advance notice is required with confirmation of the proposed closure three (3) working days in advance of the actual street closure. The Police Chief will review and approve any detours required.
- D. If an emergency necessitates the complete closing of a street, the closing will be governed by the "Emergency Provisions" section of this regulation.

Town of Amherst Development Regulations  
Roadway & Utility Standards

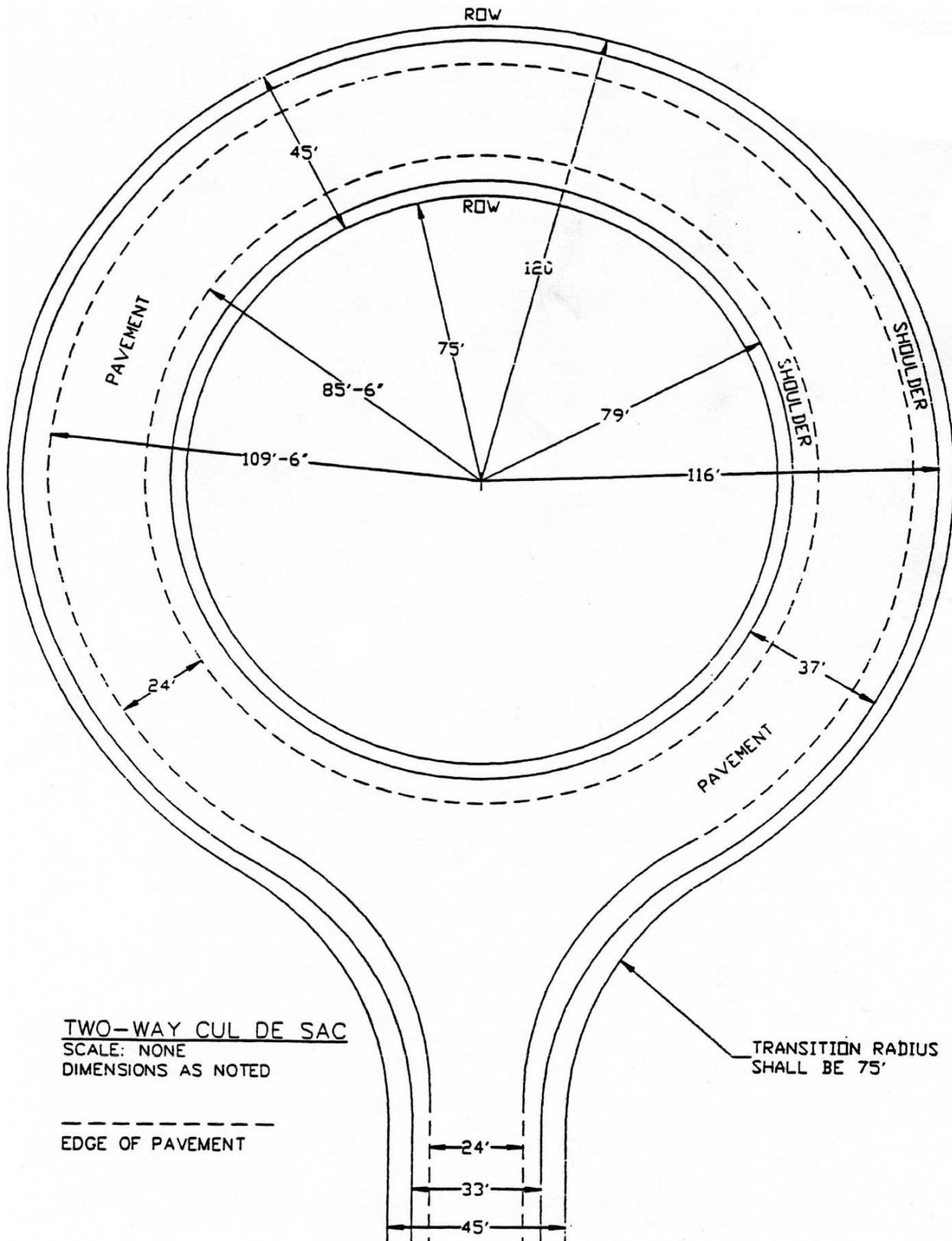
3-10

**Table 3-1**

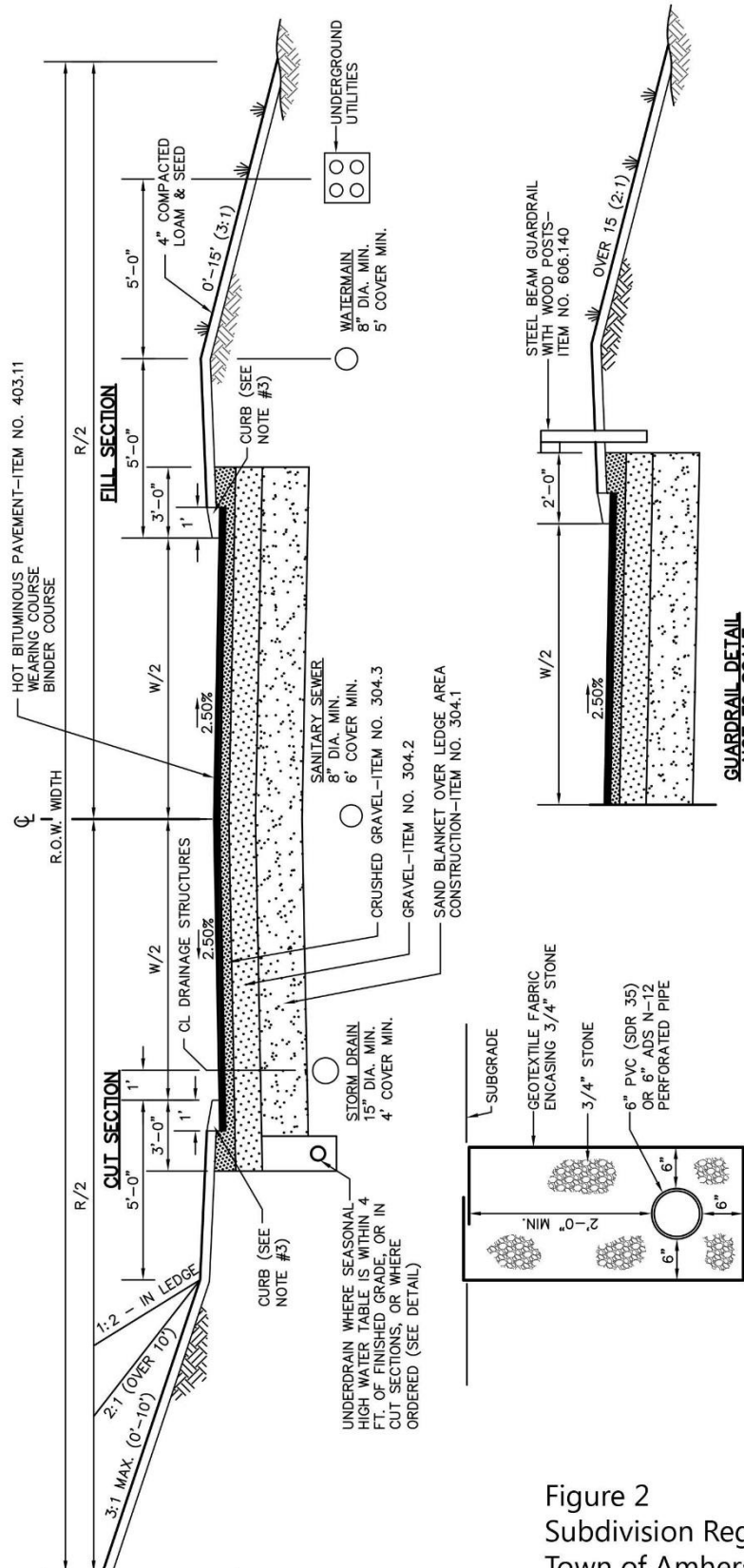
**Table of Geometric Roadway Design Standards for Streets**

Item	Collector	Non-Residential	Residential 2	Residential 1
Average Daily Traffic (VPD)	1,001 - 5,000	--	401 - 1,000	0 - 400
Design Speed	40MPH	30 MPH	30 MPH	30 MPH
Minimum Right of Way	60'	60'	50'	50'
Minimum Pavement Width	30'	30'	26'	22'
Minimum Grade	1.00%	1.00%	1.00%	1.00%
Maximum Grade	6.00%	6.00%	8.00%	8.00%
Minimum Angle of Intersections	90 <sup>0</sup>	90 <sup>0</sup>	90 <sup>0</sup>	80 <sup>0</sup>
Minimum Centerline Radius of Curves	600'	300'	300'	150'
Minimum Tangent Length between Reverse Curves	300'	200'	200'	100'
Road Base (Minimum)				
Crushed Gravel (NHDOT 304.3) Thickness	8"	8"	8"	8"
Gravel (NHDOT 304.2) Thickness	16"	16"	16"	12"
Sand (NHDOT 304.1) Thickness	12"	12"	12"	12"
Bituminous Concrete Paving (NHDOT 403.11)				
Min. Binder Course Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Min. Wearing Course Thickness	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Minimum Road Crown	0.025	0.025	0.025	0.025
Cul-de-Sac Streets				
Min. R.O.W. Radius	--	75'	--	75'
Centerline Radius	--	55'	--	55'

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**TYPICAL ROADWAY CROSS-SECTION**  
—NOT TO SCALE—



- NOTES:**
1. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO ROADWAY CONSTRUCTION SHALL CONFORM TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AS PUBLISHED BY THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION AND SUBDIVISION CONTROL REGULATIONS OF THE TOWN OF WINDHAM.
  2. FULL WIDTH OF RIGHT-OF-WAY SHALL BE CLEARED OF ALL EXISTING BRUSH AND TREES UNLESS OTHERWISE DIRECTED OR APPROVED BY THE PLANNING BOARD.
  3. CURB TYPE SHALL BE AS FOLLOWS:  
—COLLECTOR & NON-RESIDENTIAL STREETS:  
STRAIGHT GRANITE SLOPE CURB—6" HIGH  
(ITEM NO. 609.216)  
—RESIDENTIAL—1 & RESIDENTIAL—2 STREETS:  
CAPE COD BERM (SEE DETAIL)

Figure 2  
Subdivision Regulations  
Town of Amherst, New Hampshire

- E. Every permittee will be required to place around openings, excavations, encumbrances or obstructions, such barriers, barricades, lights, warning flags, danger signs and traffic control personnel as may be required by the Department of Public Works or the Amherst Police Department to protect the safety of the general public. Adequate artificial lighting devices are required to call attention to and indicate the actual location of obstructions and hazards.
- F. All barricades, warning signs, lights, temporary signals and other protective devices shall conform with the current edition of the "Manual on Uniform Traffic Control Devices for Street and Highways" which is approved by the Federal Highway Administrator as the national standard for all highways open to public travel.
- G. Traffic control devices shall be set up prior to the start of construction or maintenance operations and shall remain in place only as long as needed, or required by the Department of Public Works. Advertisements, notices and signs other than for traffic control shall not be displayed on or attached to any barricade or fence in any highway.
- H. When the work area encroaches upon a sidewalk, walkway or crosswalk area, protective barriers, together with appropriate warning and guidance devices and signs must be utilized so that the passageway for pedestrians is safe and well defined.

#### **308.4 Protection of Work Area**

- A. Street line monuments, survey reference points and permanent survey bench marks, shall not be removed or disturbed, unless specifically permitted in writing by the Department of Public Works.
- B. Provisions shall be made to provide for proper drainage during construction and the permittee shall be responsible for all claims for damage or injury that may arise from the obstruction or use of any public sewer or drain in connection with the work conducted under the permit.
- C. Shade trees shall not be cut down, trimmed or otherwise injured. Where it is necessary to cut and remove pavement, curb, sidewalk and/or other surface improvement, the material shall be cut and removed by means of equipment suitable to the type of material to be removed and in a manner which results in a minimum amount of damage to adjacent improvements.
- D. As the work progresses, all streets shall be thoroughly cleaned of all rubbish, excess earth, rock and other debris resulting from such work on a daily basis.
- E. Dust control shall be provided as necessary to prevent a nuisance to abutters and surrounding areas. Dust control shall be by wetting or use of calcium chloride or other approved methods.

#### **308.5 Proof of Compliance**

- A. In general, where compliance to the requirements of these Road and Utility Standards and

their intent is in question, the permittee, at his expense, shall provide any and all proof of compliance to the Department of Public Works. Acceptable proof shall be by approved independent laboratory tests, approved independent field tests, shop drawings and certificates of compliance from manufacturers. Specific tests as required by regulations and specifications shall be performed as ordered.

**308.6 Paving Policy**

- A. After a road excavation is commenced, the work shall proceed in a continuous manner with diligence and expedition and shall be completed and the street restored, as nearly as possible to its original condition, so as not to obstruct the public places of travel thereon more than is reasonably necessary. Upon completion of final pavement restoration, any pavement markings disturbed during excavation or construction activities associated with the Excavation Permit shall be replaced at no cost to the Town.
- B. Trench Projects: Permanent base pavement shall be installed within five (5) days from the date of completion of the work. The final wearing course of the street shall be permanently restored within a period of time not to exceed five (5) days from the date of completion of the project for main streets, and ten (10) days from the date of completion of the project for side streets. On large projects, all trench excavations must be based flush by the end of the work week. It will be the responsibility of the Contractor to take into consideration weather forecasts in planning the work. In the event that these timetables are not met, after notifying the utility the Department will withhold all additional permits beginning 24 hours after issuing the "late notice".
- C. The permittee shall place and maintain temporary pavement immediately upon backfilling and shall maintain the pavement on a daily basis. Department of Public Works inspectors will require temporary "hot-patch" or "cold-patch" dependent upon the location and size of the opening.
- D. The Public Works Director, as a condition of the permit, reserves the right to restore the highway or cause the same to be restored under his direction and the permittee shall reimburse the Town for any or all liability and expense suffered by reason of such work. If the final restoration is not completed in a prompt manner, Department forces will, after notice has been given to the permittee, make final restoration which may be done after their normal working hours (overtime rate). The permittee shall reimburse the Town for any liability and expense suffered by reason of such work.
- E. The permit shall be kept with the foreman at the place where the work is being performed and shall be produced for examination upon request of any member or officer of the Department of Public Works or any police officer of the Town of Amherst.

**308.7 Street Restoration and Patching Guidelines**

- A. Cuts shall be parallel or perpendicular to the line of the trench. In the case of transverse or

- diagonal trenching, the pavement shall be sawn to provide a flat diamond shaped patch with a two (2) foot minimum overlap on undisturbed material. It shall be cut at a minimum 1:6 ratio to ensure that only one wheel of a vehicle at a time to strike the patch area. Within the sawn limits of the final patch, the existing pavement and any temporary material shall be removed and replaced to an equal depth with a minimum of three inches (consisting of two inches of bituminous base pavement and one inch of bituminous wearing course pavement. The pavement shall be laid and compacted in a maximum of two inch thick layers to meet the existing pavement edge exactly. The face of all joints shall be painted with asphalt emulsion. (See Figure 3, Step Patching Detail)
- B. In cases where multiple excavations are made in a street which would result in the edge of patches being closer than 20 feet, the Department of Public Works Inspectors may require a continuous patch.
  - C. On surface treated gravel highways, feathering the edges of patches shall be allowed.
  - D. Excavations shall be backfilled in layers not to exceed 6d inches and shall be compacted to not less than 95% maximum dry density at optimum moisture content using pneumatic tampers, vibratory compactors or other approved means. Puddling will not be allowed.
  - E. Compaction of material shall be determined by the standard proctor method in accordance with standard specifications.
  - F. If unsuitable for backfill, excavated material shall be replaced with granular backfill gravel as specified in the "Standard Specifications for Road and Bridge Construction, State of New Hampshire, Department of Public Works and Highways", hereinafter referred to as the "New Hampshire Standard Specifications".
  - G. The minimum depth to any substructure, except manholes, vault entrance tubes, valve casings and catch basins, shall be 24 inches (30 inches desirable) below the surface of the nearest edge of the traveled portion of the street and no excavation shall be less than 20 inches in width to allow for compaction.
  - H. Permanent Pavement Patch. Within the paved roadway areas, the 12 inches of gravel sub-base material shall be placed and compacted in two six inch layers, to achieve 95% density. Following the gravel base, nine inches of crushed gravel base shall be placed and compacted to achieve 95% density. The 12 inch gravel layer may be substituted with a nine (9) inch crushed gravel layer. This will provide a total of 18 inches of crushed gravel road base. However, if existing road base is constructed to current Town standard (9 inches of crushed gravel and 12 inches of gravel), it shall be replaced with the same. Both crushed gravel and gravel shall conform to New Hampshire Standard Specifications.
  - I. Temporary Pavement Patch. The surface of the street shall be permanently restored within a period of time not to exceed five (5) days from the date of completion of the project. In any event, the permittee shall place and maintain temporary pavement immediately upon

backfilling which shall be maintained on a daily basis. Department of Public Works inspectors will require temporary "Hot-Patch" or "Cold-Patch" dependent upon the location and size of the opening.

- J. Within areas of cement concrete or stone base overlaid with asphalt, the Department of Public Works will require the replacement of the cement concrete or stone base with class "A" Portland Cement Concrete, reinforced or non-reinforced, as specified in the New Hampshire Standard Specifications to a depth equal to that removed and then overlaid with hot bituminous pavement as specified above.
- K. In sidewalk and driveway areas, six inches of crushed gravel base shall be placed and compacted to achieve 95% density. Any asphalt or concrete sidewalk surface shall be restored to depth equal to existing with three inches minimum. In case of longitudinal trenches in a sidewalk area, full width restoration may be required.
- L. In other areas, the excavation shall be restored to the condition that existed before the excavation or as directed by the Department of Public Works inspectors. Any existing grass area shall be restored with four (4) inches of sifted loam which shall be fertilized and seeded.

**308.8 Street Excavation Moratorium**

- A. After a Town street has been resurfaced, no excavation permits will be issued for a period of three (3) years unless approval is given by the Director of Public Works or his designee.
- B. After a Town street has been accepted, newly constructed or reconstructed, no excavation permits will be issued for a period of five (5) years unless approval is given by the Director of Public Works or his designee.
- C. Protection of Streets - In an effort to protect the Town's investment in its infrastructure, excavations in areas under moratorium within the public right-of-way or on Town property, are prohibited except as follows:
  - 1. Excavations to remedy a public emergency or a situation that creates an imminent threat to the public safety, health or welfare.
  - 2. Repair or modification to prevent interruption of essential utility services where no reasonable alternatives are available to avoid excavation in new pavements.
  - 3. Relocation work that is mandated by State or Federal legislation.
  - 4. Utility services for new buildings or parcels without existing utility services where no other reasonable means of providing service exists, as determined by the Director of Public Works.
  - 5. Excavations within protected streets where the Town has scheduled the reconstruction within one year due to the failure of the original pavement.



6. Other situations deemed by the Public Works Director to be in the best interest of the general public.
- D. The Department of Public Works will notify utilities of its schedule of overlay and reconstruction activities. This notification will allow time for utilities to perform work as needed prior to the Department of Public Work's work. If the Department does not notify the utility of their intent to overlay/reconstruct prior to 60 days of work, then excavations may be granted at the discretion of the Public Works Director or his designee.
- E. When excavations are made in streets closed by moratorium due to emergency or the decision of the Department of Public Works, street restoration will be made utilizing methods dictated by the Department. The methods may include but are not limited to infra-red treatment, milling and overlay, and/or full width overlay.

### **308.9 Insurance Requirements**

- A. The permittee agrees to furnish a continuing surety bond for a period of Thirty (30) months in the amount of five thousand dollars (\$5,000). (Except that the Public Works Director may require a differing amount depending upon the volume of the work being performed by the permittee) guaranteeing the fulfillment of the provisions, instructions and regulations prescribed above and later instructions issued by the Department of Public Works during the performance of the work and satisfactory maintenance of the disturbed areas for a period of Thirty (30) months following the completion of the work and the payment of the charges owed the Department of Public Works.
- B. Other required insurance:
  - Comprehensive general liability insurance written on occurrence form, including completed operations coverage, personal injury liability coverage, broad form property damage liability coverage and contractual liability coverage insuring the agreements contained herein. The minimum limits of liability carried on such insurance shall be \$1,000,000 each occurrence and, where applicable, in the aggregate combined single limit for bodily injury and property damage liability; \$1,000,000 annual aggregate personal injury liability.
  - Automobile Liability insurance for owned, non-owned and hired vehicles. The minimum limit of liability carried on such insurance shall be \$1,000,000 each accident, combined single limit for bodily injury and property damage.
  - Workers compensation insurance whether or not required by the New Hampshire revised statutes annotated, 1995, as amended, with statutory coverage and including employer's liability insurance with limits of liability of at least \$100,000 for each accidental injury and, with respect to bodily injury by disease, \$100,00 each employee and \$500,000 per policy year.

- C. Any and all deductibles on the above described insurance policies shall be assumed by and for the account of, and at the sole risk of the permittee.
- D. Insurance companies utilized must be admitted to do business in New Hampshire or be on the insurance commissioner's list of approved non-admitted companies and shall have a rating of "A" or better in the current edition of Best's key rating guide.
  - 1. Permittee agrees to furnish certificate(s) of the above mentioned insurance to the Town of Amherst within fourteen (14) days from the date of this agreement and, with respect to the renewals of the current insurance policies, at least thirty (30) days in advance of each renewal date. Such certificates shall name the Town of Amherst and the Amherst Department of Public Works as additional insured and shall state that in the event of cancellation or material change, written notice shall be given to the Town of Amherst, Department of Public Works, 2 Main Street, PO Box 960, Amherst, New Hampshire 03031 at least thirty (30) days in advance of such cancellation of change.

**308.10 Emergency Provisions:**

- A. Emergency excavations or closing of Town streets shall be done by obtaining an emergency permit from the Department of Public Works.
- B. If such an emergency exists, the Police Department, Fire Rescue and Department of Public Works, as a minimum, shall be notified immediately by telephone. Failure to notify the Department of Public Works immediately will result in the Contractor being required to re-excavate the excavation to allow the Town to confirm that proper construction techniques are used. **At the earliest opportunity available**, a representative of the permittee shall obtain a regular permit at the office of the Department of Public Works.
- C. The Public Works Director reserves the right to waive any of the provisions of this regulation in case of an emergency, and to impose such conditions as he may require as part of an emergency permit.
- D. After an excavation is commenced, the work shall proceed in a continuous manner with diligence and expedition and shall be completed and the street restored, as nearly as possible to its original condition so as not to obstruct the public places or travel thereon more than is reasonable necessary. The surface of the street shall be permanently restored within a period of time not to exceed five (5) days from the date of completion of the project for main streets, and ten (10) days from the date of completion of the project for side streets. In any event, the permittee shall place and maintain temporary pavement immediately upon backfilling and shall be maintain the pavement on a daily basis. Department of Public Works inspectors will require temporary "Hot-Patch" or "Cold-Patch" dependent upon the location and size of the opening.
- E. Upon completion of the pavement restoration, the Department of Public Works shall be immediately notified as to the location and time of completion.

**308.11 Street Excavation General Provisions:**

- A. An Application and Permit form, prepared in accordance with Department procedures, is required for every excavation within the Town's right of way and must be accompanied by the required permit fee.
- B. A set of plans showing the work to be performed must accompany each request for a permit.
- C. The original copy of the approved Application and Permit form and an approved set of work and plans (marked "approved") must be kept on the job at all times.
- D. If work for which any Department of Public Works permit has been issued does not commence within five (5) days from the date of the permit or the proposed construction start date if given, the Permit becomes "void". The permit may be extended by the Department of Public Works if a request for an extension is made prior to the permit becoming void. Once a permit has become void, it will be considered as if the permit was never issued, but the fee will not be refunded.
- E. Each applicant must obtain from the Department of Public Works, a copy of the Specifications and Regulations governing street excavations in Amherst streets.
- F. The Public Works Director is authorized to revoke any permit if he finds that the Town of Amherst Street Excavation Ordinance or the Regulations and Specifications are being violated.
- G. Construction plans for major and minor underground installations submitted to the Department of Public Works for permits shall contain the following:
  - 1. MAJOR UNDERGROUND INSTALLATIONS - These projects are defined as follows:
    - Those involving more than one conduit.
    - Those electric conduits four (4) inches and larger.
    - Electrical cable system of 34 KV or higher.
    - Gas main two (2) inches in diameter or larger.
    - Water mains six (6) inches in diameter or larger.
    - Sewer mains eight (8) inches in diameter or larger.

Plan and Profile Requirements: Drawing should be 24" x 36" with horizontal scale of one (1) inch = 20 feet and vertical scale of one (1) inch= four (4) feet or two (2) feet, (whichever is best) and provide the following:

- Locations of proposed construction.
- All existing facilities, right-of-ways and property lines.

- All construction details.
  - Elevations for the entire length of the profile including: Existing roadway; proposed installations; and existing facilities.
2. MINOR UNDERGROUND INSTALLATIONS - All proposed underground installations not described above as major installations.

Plan Requirements. Complete set of drawing shall be provided showing:

- Locations of proposed construction.
- All existing facilities that the proposed construction would cross or parallel in public right-of-way.
- Dimensional ties to monument lines in streets and to property lines.
- A scale of one (1) inch = 20 feet is desired.
- Depth of proposed installations by notes on the permit drawings.

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**Winter Excavation Permits:**

**A. Application Procedure**

1. Between November 15th and April 1st - Permits will be issued on a case by case basis for any Street Excavation with the exception of emergencies.
  - a. The permit must be signed by the Public Works Director and there must be a plan with each permit request. New work must also be signed by the Public Work Director.
  - b. The request must be in a letter form, stating:
    - i) Date of request.
    - ii) Name of Contractor.
    - iii) Name of customer/homeowner, business, and/or other interested parties.
    - iv) Detailed description of project.
    - v) Reason why it has to be done now.
    - vi) Method of temporary restoration.
    - vii) Who will maintain patch until permanently restored with 24 hour contact number.
    - viii) When excavation will be permanently restored.
    - ix) Company that will effect restoration.

- B. Winter Construction Procedures.** The procedure outlined in the Section 3.08.11 Street Excavation General Provisions, shall be followed **except** for the placing of asphaltic pavement.

1. If hot bituminous concrete asphalt is available, three (3) inches of **temporary** hot

bituminous pavement (1/2" aggregate) shall be used. If hot bituminous concrete asphalt is not available, then, QPR 2,000 high performance cold patch shall be placed over a prepared crushed gravel base.

-OR-

2. Three (3) inches of class "A" (3000 PSI) concrete shall be placed over a prepared crushed gravel base.
  - a) The concrete shall have a one percent (1%) calcium chloride added to accelerate curing.
  - b) The concrete placed shall be brought even with the elevation of the existing asphalt pavement.
  - c) The surface of the pavement will have a rough broom-type finish placed perpendicular to the flow of traffic.
  - d) The concrete pavement shall be protected from freezing for a minimum of two (2) days by covering it with polyethylene plastic or hay and polyethylene plastic. The length of protection and curing, may be increased or decreased by the Department of Public Works depending on the daily temperature.
3. The following spring when hot bituminous pavement becomes available, the **temporary** patch shall be removed and replaced with pavement as required in the Department of Public Works Street Excavation General Instructions.
4. The permittee must maintain the temporary patch until permanent restorations can be made.

### **310     Driveway Regulations**

#### **A.    Authority**

The Town of Amherst Planning Board hereby adopts the following regulation pursuant to its authority as set forth at RSA 236:13.V, and establishes that hereafter no driveway or access point providing access from private property to a public way owned and maintained by the Town of Amherst shall be constructed without compliance with this regulation.

#### **B.    Purpose**

Inasmuch as driveways, entrances and access points are, in effect, intersections, and therefore require certain controls as to size, location and construction in order to provide safe and efficient access to property fronting on the public way, as well as surface drainage in and around said driveways, this regulation is enacted for the purpose of such control.

**C. Definitions**

1. Access Point: An opening for vehicles to enter from or exit to a public right-of-way.
2. DPW Director: the Director of Public Works or designated agent.
3. Driveway Approach: An area of the public right-of-way located between the roadway and property adjacent to the public right-of-way that is intended to provide access for vehicles from the roadway to the adjacent property.
4. Driveway: A permanent access point that is intended to provide access for vehicles from the roadway to the adjacent property.
5. Driveway Entrance: Portion of a driveway which immediately abuts the public right-of-way or a private street.
6. Residential Driveway: An access point that is intended to provide access for vehicles from the roadway to a residential property serving less than three dwelling units.
7. Non-residential Driveway: An access point that is intended to provide access for vehicles from the roadway to a non-residential (commercial, industrial, etc.) use or an access point that is intended to provide access to a private roadway.
8. Right of Way: The full width of the legal right of way of a public road, which width generally is understood to extend beyond the limits of the paved or traveled portion of the road.
9. Temporary Access Point: An access point to be utilized for a temporary period of time not to exceed one year.

**D. PERMIT**

Anyone desiring to construct, alter, or relocate a driveway or temporary access point in order to obtain access to an existing public way or a proposed street or public way, shall first apply for and obtain a permit from the Director of Public Works (DPW Director). This permit shall provide for the approved location, construction, alteration or relocation of such driveway in accordance with the specifications provided in the driveway permit form, which is available at the Department of Public Works, the Community Development Office and related websites. The driveway location as indicated on the approved permit (in accordance with the approved site plan or septic plan, as applicable) is the ONLY driveway to be utilized unless the DPW Director or the Planning Board authorizes a change in writing. If a permanent house or structure number is assigned by the Building Department at the time of driveway permit issuance the number shall be located so as to be clearly visible from the roadway at start of construction.

If the roadway to be accessed by a proposed driveway is maintained by the State of NH, the applicant shall apply for and receive a driveway permit from the State of NH Department of

Transportation (NHDOT) and will not be required to obtain a Driveway Permit from the Town of Amherst. Applicants can obtain a permit and information for driveway permits on State maintained roadways at [www.nh.gov/DOT](http://www.nh.gov/DOT) or by calling the Department of Transportation directly at 603.271.3734. A copy of the final, signed NHDOT Permit shall be submitted to the Town of Amherst.

**E. PERMIT PROCESS**

1. Prior to submitting an application for a driveway permit the applicant shall clearly mark and flag the location of the proposed driveway with a centerline stake at the edge of the right-of-way (ROW). The applicant shall then submit completed applications to either the Department of Public Works or Community Development Office.
2. Applications will be reviewed with a site inspection (as necessary) and approved by the Department of Public Works within ten (10) business days. The approved permit and any additional documentation will be sent to the Community Development Office.
3. Once the driveway permit has been approved by the DPW Director the driveway can be installed.
4. A construction exit/entrance shall be in place prior to the start of on-site activity (see Appendix, Figures 4 and 5).
5. Upon completion of a driveway or a minimum of fourteen (14) days prior to the issuance of a Certificate of Occupancy (CO) by the Building Department, the Department of Public Works will perform a post-construction inspection and issue a Certificate of Compliance (CC) for the driveway. A copy of the CC will be sent to the Community Development Office. A CO will not be issued unless a driveway CC has been issued by the Department of Public Works or a security is in place.
6. Failure to begin construction within one (1) year of application approval will render the driveway permit null and void.
7. A permit is required from the Department of Public Works for any temporary access point. A security in an amount to be determined by the DPW Director may be required at the discretion of the Director. If a security is required, the applicant shall submit an itemized detailed estimate of the cost to complete the driveway to the DPW Director who shall determine the required amount of the security.

**F. RESIDENTIAL ACCESS POINTS**

1. If a property is adjacent to a side road, the access to the main road should be via the side road.
2. Curb cuts shall be limited to one (1) per residential lot, except where the DPW Director has determined that a second cut is warranted and can be safely accommodated. A

scale drawing indicating the features necessitating the second access must be submitted for the DPW Director to make a determination. A second cut may be granted under the following conditions:

- a. A second curb cut is necessary for access to a secondary use or structure, or if the physical constraints of the lot, including natural features, unusual lot shape, size or elevation change necessitates the second access.
  - b. A second curb cut is necessary to allow handicapped access for an individual who is a permanent resident of the property.
3. A permit is required from the Department of Public Works for any temporary access point. A security in an amount to be determined by the DPW Director may be required at the discretion of the Director. If a security is required, the applicant shall submit an itemized detailed estimate of the cost to complete the driveway to the DPW Director who shall determine the required amount of the security.
  4. A construction exit/entrance is required for all residential driveways and temporary access points (See Appendix, Figure 4). The public right-of-way shall be cleared daily of debris such as mud, stone, earth and all construction supplies, vehicles and equipment. Said maintenance of the exit/entrance shall be the responsibility of the permit applicant.

**G. NON-RESIDENTIAL ACCESS POINTS**

1. Curb cuts shall be limited to one (1) per lot, unless additional curb cuts are approved through Planning Board Site Plan approval or if the DPW Director has determined additional curb cuts are warranted and can be safely accommodated. If the driveway(s) are not shown on an approved Site Plan, a scale drawing indicating the features necessitating additional access points must be submitted to the DPW Director to make a determination, who may consult with the Fire, Police, EMS and Planning Departments prior to making a determination. Additional cuts may be granted to provide access to a secondary use, structure or corner lots, to increase access safety or if the physical constraints of the lot, including natural features, unusual lot shape, size, or elevation change necessitates the additional access.
2. A permit is required from the Department of Public Works for any temporary access point. A security in an amount to be determined by the DPW Director may be required at the discretion of the Director. If a security is required, the applicant shall submit an itemized detailed estimate of the cost to complete the driveway to the DPW Director who shall determine the required amount of the security.
3. A construction exit/entrance is required for all non-residential driveways and temporary access points (See Appendix, Figure 5). The public right-of-way shall be cleared daily of debris such as mud, stone, earth and all construction supplies, vehicles and equipment.



Said maintenance of the exit/entrance shall be the responsibility of the permit applicant.

#### **H. DESIGN REQUIREMENTS**

1. Driveway design and construction shall conform to the applicable Residential or Non-Residential detail and the regulations contained herein. It is understood that the applicant shall confer with the DPW Director who shall determine specifications as to sloping, culverts, headwalls and other aspects of construction of said driveway only when it deviates from the typical profile and standards. The deviations shall be noted in writing on the Driveway Permit.
2. All driveways shall be a minimum of ten feet (10') in width. A residential entrance shall flare as it approaches the pavement to a maximum width of twenty-four feet (24') measured at the existing edge of roadway. A non-residential entrance shall flare as it approaches the pavement to a maximum width of fifty feet (50').
3. All driveways shall be designed so as to minimize disturbance to stone walls.
4. Flat driveway side-slopes (4:1 to 6:1) are required to minimize hazards to vehicles that leave the pavement for any reason.
5. The asphalt apron of paved driveways shall be paved twenty feet (20') from the edge of pavement of a public road and shall be constructed with a minimum of three inches (3") of asphalt with emulsion applied at the joint with the Town roadway surface.
6. All unpaved driveways shall require an asphalt apron. The asphalt apron shall be paved twelve feet (12') from the edge of pavement of a public road and shall be constructed with a minimum of three inches (3") of asphalt with emulsion applied at the joint with the Town roadway surface.
7. All new driveways established to serve structures intended for human occupancy shall have a maximum grade of eight percent (8%). The purpose of the maximum grade requirement is to ensure public safety and accessibility for emergency vehicles. This standard shall not apply to driveways intended to serve non-occupancy structures, such as utility service buildings, and other private ways intended for purposes such as logging, silviculture, agriculture and recreational access.
8. All driveways shall have a minimum of a one percent (1%) negative grade from the edge of the traveled way to the center of the ditch line, to insure the driveway does not drain into the street.
9. All driveways shall intersect the Town's roadway at an angle as close to perpendicular as practicable and shall not be less than sixty (60°) degrees from the Town ROW line.
10. Where required, culverts shall be at least fifteen inches (15") in diameter and shall be constructed of reinforced concrete, high density polyethylene pipe, riveted aluminum,

corrugated steel, or approved equal. The driveway will have shoulders minimum of three feet (3') shoulders on each side where it meets the culvert. Culverts shall be a minimum of thirty feet (30') long and shall have a minimum twelve inches (12") of cover above the crown, or comparable equal, alternative load bearing pipe configuration.

11. Headwalls shall be constructed of pre-cast, cast-in-place concrete, or stone and mortar. The culvert cover shall be equal to or greater than two feet (2'). Where headwalls are not applicable, pre-manufactured flares will be placed on each pipe end.
12. Safe sight distance shall be maintained and is defined as a line which encounters no visual obstruction between two points, each at a height of three feet, nine inches (3'9") above the pavement, and ten feet (10') back from the road pavement, to represent the critical line of sight between the operator of a vehicle using the access and the operator of a vehicle approaching from either direction as described in Section L.4 below. Unposted roads shall be assumed to be thirty (30) mph.

13. Driveway Design Features:

- a. The following table summarizes driveway design features:

	<b>For parcels with fifty-one feet (51') or more of frontage</b>	<b>For parcels with fifty feet (50') or less of frontage</b>
Minimum tangent between drives*	100 feet	50 feet
Minimum distance between intersections*	100 feet	50 feet

\*Note: The dimensions of the minimum tangent between drives and distance from intersection shall be detailed on the driveway plan.

- b. Safe sight distance shall be compatible with the maximum speed limit posted on the road, as described in the following table:

<b>Speed Limit (MPH)</b>	<b>Sight Distance</b>
15-25 MPH	200 feet
26-35 MPH	300 feet
36-55 MPH	400et

- c. In cases of rear lots with private ways to local streets, the above requirements for minimum tangent between drives and maximum frontage drives shall not apply.
- d. Any driveway impacting a wetland or wetlands buffer shall have all permits required by the State and Town posted on-site until a CC is issued or all on-site work is completed, whichever comes last.
- e. Two-way driveways, divided driveways and alternate major entrances shall be constructed to State DOT standards and shall be approved by the Planning Board or the DPW Director.

**I. MAINTENANCE RESPONSIBILITY**

1. Temporary and permanent erosion and sedimentation control measures shall be provided before, during and after construction, in accordance with the best management practices as described in the “New Hampshire Stormwater Manual” (NH Department of Environmental Services 2008) as amended, a copy of which is available in the Community Development Office.
2. The applicant, or their grantees, successors and/or assigns served by the driveway shall be responsible for the following:
  - a. Maintenance of the driveway from the edge of the roadway pavement or paved shoulder, if existing;
  - b. Maintenance of all approved and/or required upstream and downstream drainage alterations including but not limited to: pipe extensions, open ditches, swales, drainage systems and detention ponds, with the exception of connecting catch basins, manholes or other specified structures at roadway cross culverts;
  - c. All driveway pavement markings and all traffic control signs on the drive with the exception of a stop sign or yield sign; and,
  - d. Operational costs of electric service for traffic signals and street lights that are required by the permit.
3. The Department of Public Works may also specifically maintain the following drainage structures:
  - a. Drainage systems within the roadway limits, serving existing State highways, and constructed for the purpose of controlling highway and surface water run-off; and,
  - b. Catch basins, manholes or other specified connecting drainage structures constructed at the end of cross roadway culverts or parallel culverts serving the State highway system.

**J. EASEMENT AND SECURITY**

1. The applicant may, at the discretion of the DPW Director or Planning Board, and as a condition of the granting of the Driveway Permit, be required to provide to the Town of Amherst, its successors and/or assigns, an easement for the purpose of entering upon the premises of the applicant to control or maintain surface drainage on the property and perform all necessary maintenance for, and incidental to, said drainage easement.
2. A security in an amount as detailed below shall be required to guarantee the proper construction of any culverts, piping, ditching or other efforts incidental to and necessary for the proper discharge and control of surface drainage in and around the vicinity of

the proposed driveway as well as the proper construction of the driveway entrance both on the property of the applicant or on the property of the Town of Amherst.

- a. Residential Driveway Permit: A security in the amount of \$600 is required.
  - b. Temporary Access Points: A security may be required at the discretion of the Director of Public Works in an amount to be determined as set forth below.
  - c. Non-Residential Driveway Permit: A security shall be required in an amount to be determined as set forth below
3. If a security is deemed necessary, the applicant shall submit an itemized detailed estimate of the cost to complete the driveway to the DPW Director, who shall determine the required amount of the security. The security shall be provided to the Department of Public Works to be held in an escrow account and released upon issuance of a CC.
  4. Failure to complete construction within one (1) calendar year from the date of posting of a security shall result in the automatic calling of the security, unless specifically extended by the DPW Director for a period of one (1) additional year.
  5. Funds may be withdrawn from the security by the Town of Amherst and applied to the cost of said construction which the Town of Amherst is obliged to complete. No funds shall be expended at any site in excess of the amount of the security pertaining to said site.
  6. Driveways that have not received a CC at the time of the issuance of a CO will be required to provide a security to insure completion of the approved driveway to Town of Amherst specifications. If a security is provided in lieu of obtaining a CC for the driveway, The Department of Public Works shall submit documentation to the Community Development Office notifying them of the security.

### **311    WAIVERS AND APPEALS**

1. Upon written application, the DPW Director may waive any of the design requirements for driveways, roadways and utilities when it is shown that strict compliance would cause undue or unnecessary hardship, so long as such waiver does not result in the likelihood of injury to the public health, safety or welfare.
2. Upon written application, the Planning Board may waive any of the design requirements for driveways, roadways and utilities as part of Non-Residential Site Plan approval when it is shown that strict compliance would cause undue or unnecessary hardship, so long as such a waiver does not result in in the likelihood of injury to the public health, safety or welfare.
3. Any applicant or abutter aggrieved by the regulations herein or a decision made by the Director of Public Works in regards to a waiver request shall appeal that decision to the

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Planning Board within 30 days. The Planning Board shall apply the standards in appeals as outlined above.

**312    SEPARABILITY**

The invalidity of any provision of these regulations shall not affect the validity of any other provision.

**313    ENFORCEMENT**

The Amherst Board of Selectmen, Zoning Administrator, and the DPW Director are charged with the power and authority to enforce the provisions of these regulations.

**314    AMENDMENT**

These regulations may be amended by the Planning Board following a noticed public hearing on the proposed amendment. All amendments will take effect upon approval by a majority of the Planning Board and filed with the Amherst Town Clerk.