

GRAY STREET CONSTRUCTION ORDINANCE UPDATE

DRAFT NOVEMBER 5 2010

PROPOSED CHAPTER 400 & 401

ADDITIONS INDICATED BY UNDERLINE TEXT,
DELETIONS BY ~~STRIKETHROUGH~~

PART 1 – Amend the Gray Subdivision Ordinance (chapter 401) by adding a new subsection 401.13.15 C to read as follows:

Note: Parts 1 and 2 of the proposed amendments move all standards for streets in subdivisions subject to Planning Board approval from the Street Ordinance to the Subdivision Ordinance and updates them to meet current practice.

401.13.15 Traffic Conditions and Streets

C. General Internal Subdivision Street Standards

All internal subdivision streets shall meet the following minimum standards.

1. The street or street system of the proposed subdivision shall be designed to coordinate with existing, proposed, and planned streets. Wherever a proposed development abuts unplatted land or a future development phase of the same development, the street right of way shall be extended to the property line as deemed necessary by the Planning Board with input from the Town Planner and Town Engineer to provide access to abutting properties or to logically extend the street system. If possible, local streets in the subdivision shall connect with surrounding streets to permit convenient movement of traffic between residential neighborhoods, to reduce service vehicle mileage, to permit looping of utilities, and/or facilitate emergency access and evacuation, but such connections should not have the effect of encouraging the use of such streets by substantial through traffic unless the street is designed for such purpose.
2. As determined by traffic engineering studies performed by qualified professionals, where necessary to safeguard against off-site hazards to vehicle drivers, bicyclists and pedestrians and/or to avoid traffic congestion, the Planning Board with input from the Town Engineer may require turning lanes, traffic directional islands, frontage roads, sidewalks, bike lanes, and traffic controls within the subdivision and/or on existing public streets that are impacted by the development.
3. Street Names and Signs Lighting.
Streets which join and are in alignment with streets of abutting or neighboring properties shall bear the same name. Street names shall not continue beyond a new intersection unless the street is a direct continuation of that street through the intersection with no turning movements. Names of new streets shall not duplicate, nor bear phonetic resemblance to the names of existing streets within the municipality, and shall be subject to the approval of the Planning Board

based on input of the Department of Public Safety. No street name shall be the common given name of a person. The developer shall either install street name, traffic safety and control signs meeting municipal specifications or reimburse the municipality for the costs of their installation.

4. Street Lighting.

Street lights meeting Central Maine Power Company standards shall be installed at all intersections and dead end turnarounds.

3. During street construction, the entire right of way shall not be cleared unless clearing is necessary for utilities, drainage or other infrastructure necessities, or to remove trees that will shade pavement in winter. Following street construction, the developer or contractor shall conduct a thorough clean-up of stumps and other debris from the entire right of way created during the street construction process. If on-site disposal of the stumps and debris is proposed, the disposal site shall be indicated on the plan, and be suitably covered with fill and topsoil, limed, fertilized, and seeded.

PART 2 – Amend the Gray Subdivision Ordinance (chapter 401) by amending Section 401.13.16 to read as follows:

401.13.16. Street Access Design Standards

~~Construction of all entrances, streets, and driveways within subdivisions shall be subject to the requirements of the Street Construction Ordinance Chapter 400.~~

A. Access Control.

1. To the maximum extent possible, all subdivision accesses shall be constructed perpendicular to the external street providing access to the subdivision. No subdivision access shall intersect the external street at an angle of less than seventy-five (75°) degrees based upon a showing that the perpendicular alignment is not possible. In such cases the right of way shall be curved to achieve a perpendicular alignment at the intersection for a distance of seventy-five (75 ft.) feet.
2. Where a major subdivision abuts an arterial or major collector street (all numbered State routes in Gray), no lot may have vehicular access directly onto the arterial or collector street. Minor subdivisions on arterials and major collectors shall have shared driveways subject to the requirements of the Street Ordinance and MDOT permitting requirements. Access restrictions on such lots shall be noted on the subdivision plan and in the deeds.
3. Where a lot has frontage on two or more streets, the access to the lot shall be provided to the lot across the frontage and to the street where there is lesser potential for traffic congestion and for hazards to traffic and pedestrians. This restriction shall appear as a note on the subdivision plan and as a deed

restriction to the affected lots. In cases where creating an access to a lesser traveled way is problematic, the Planning Board, with input from the Town Engineer, may allow an access on the higher volume street if the access does not significantly detract from public safety. For accesses on higher volume streets, the Board shall consider the functional classification of the external street, the length of frontage on the external street, the intensity of traffic generated by the proposed subdivision, the geography along the frontage of the public way with lesser potential for traffic, and the distance to the public way with lesser potential for traffic.

4. Cross (four-corner) street intersections shall be aligned on opposite sides of the through street. If it is not possible to align the intersecting streets, a distance of at least two hundred (200') feet shall be maintained between centerlines of offset intersecting streets and between new intersections on the same side of a street. This intersection alignment rule shall apply to both external and internal intersections.
5. The minimum centerline curve radius shall be two hundred (200') feet. For road sections with greater than five (5%) percent grade, the centerline radius shall be increased by fifty (50') feet for every one (1%) increase in grade above five (5%).
6. Minimum Sight Distance Standards
 - a. Minimum sight distance requirements for all subdivision accesses connecting to external streets shall be contingent on the posted speed of the external street connecting to the subdivision access. On roads that are designated by the Maine Department of Transportation as Mobility or Retrograde Arterials, the third column in Table 13.15-1 shall apply.

TABLE 13.16-1 REQUIRED ROAD ACCESS SAFE SIGHT DISTANCES

<u>Posted Speed</u>	<u>Sight Distance</u>	<u>Mobility Sight Distance¹</u>
<u>(MPH)</u>	<u>(Feet)</u>	<u>(Feet)</u>
<u>20</u> 155	___ 225	___
<u>25</u> 200	___ 300	___
<u>30</u> 250	___ 380	___
<u>35</u> 305	___ 480	___
<u>40</u> 360	___ 580	___
<u>45</u> 425	___ 710	___
<u>50</u> 495	___ 840	___
<u>55 & over</u> 570	___ 990	___

¹ Mobility or Retrograde Arterials are critical travel corridors identified by MDOT. In Gray, the only such designated corridor is Route 26 from Cumberland through to New Gloucester.

- b. The measurement of sight line distances shall be from a point at a distance of ten (10) feet from the edge of the travel way at a height of three and one half (3.5) feet above the level of the surface of the travel way to the top of an object four and one quarter (4.25) feet above the surface of the travel way in the center of the approach lane.
- c. Where sight line distances cannot be met at proposed new intersections, portions of the right of way as well as portions of abutting lots under the control of the applicant may be cleared of all growth (except isolated trees) and obstructions to achieve required sight distances. The applicant shall provide documentation that areas cleared to improve sight distances will be maintained in that condition. If approved by the Town Engineer and Public Works Director, the grade of the approach road may be modified to achieve improved visibility.

B. Street Design Standards

1. General Requirements

- a. The Planning Board shall not approve any subdivision plan unless proposed streets are designed in accordance with the specifications contained in these regulations. Approval of the final plan by the Board shall not be deemed to constitute or be evidence of acceptance by the municipality of any street or easement (see Section 401.13.16 2. f below).
- b. Applicants shall submit to the Planning Board, as part of the preliminary plan, detailed construction drawings showing a plan view, profile, and typical cross-section of the proposed streets. The plan view shall be at a scale of one inch equals no more than fifty feet. The vertical scale of the profile shall be one inch equals no more than five feet. The plans shall include the following information:
 - i. Date, scale, and north point, indicating magnetic or true.
 - ii. Intersections of the proposed street with existing streets.
 - iii. Intersections of other existing or proposed streets within 300 feet of proposed intersections.
 - iv. Roadway and right-of-way limits including edge of pavement or aggregate base, edge of shoulder, clear zone, sidewalks, and curbs.
 - v. Kind, size, location, material, profile and cross-section of all existing and proposed drainage structures and their location with respect to the existing natural waterways or drainage systems that could be affected by the proposed development, and proposed drainage ways and stormwater management systems.
 - vi. Complete curve data shall be indicated for all horizontal and vertical curves.

- vii. Turning radii at all intersections.
 - viii. Centerline gradients.
 - ix. Size, type, vertical clearance and locations of all existing and proposed overhead and underground utilities, to include but not be limited to water, electricity, telephone, lighting, and cable television.
 - x. A soil erosion and sedimentation control plan showing interim and final control provisions.
 - xi. For streets that are to be located within the watershed of a great pond (Little Sebago Lake, Crystal Lake, or Forest Lake), a phosphorous impact plan in conformance with the recommendations presented in Phosphorous Control in Lake Watersheds published by Maine Department of Environmental Protection.
- c. Upon receipt of plans for a proposed street the Planning Board shall forward one copy to Public Works Director, and the Town Engineer for review and comment. Plans for streets which are not proposed to be accepted by the municipality shall be sent to the Town Engineer for review and comment.
- d. Where the applicant proposes improvements within existing public streets, the proposed design and construction details shall be approved in writing by the Public Works Director or the Maine Department of Transportation, as appropriate.
- e. Private Roads.
- i. Where the subdivision streets are to remain private roads, the following words shall appear on the recorded plan:
“All roads in this subdivision shall remain private roads to be maintained by the developer or the lot owners and shall not be accepted or maintained by the Town except for roads that meet requirements for winter maintenance under a public easement.”
 - ii. A road maintenance agreement or homeowners’ association framework, prepared by the applicant’s attorney and approved by the Town Attorney shall be recorded with the deed of each property to be served by a common private road. The agreement or association framework shall provide for a method to initiate and finance a private road and maintain that road in good condition, and a method of apportioning maintenance costs to current and future users.

2. Street Design

- a. These design standards shall control the roadway, shoulders, clear zones, curbs, sidewalks, drainage systems, culverts, and other appurtenances associated with the street, and shall be met by all streets within a

- subdivision, unless waivers are granted by the Planning Board with input of the Town Engineer and in keeping with the waiver criteria of Article 12.
- b. Reserve strips controlling access to streets shall be prohibited except where their control is placed with the municipality.
 - c. All streets in approved residential subdivisions shall meet the variable design standards of Table 13.16-2 (Commercial and multi-family subdivision access drives shall meet the requirements of Chapter 402.10.11 for site plan review).
 - d. All residential subdivision streets in the Medium Density (MD) and Village Center (VC) Zoning Districts shall meet the standards for Village Public Streets or Sub-collector streets. Subdivision streets in other zoning districts shall meet the standards for Local Minor Street, Rural Public Easement, Rural Public Street, or Sub-collector based on the number of dwelling units served by the street.
 - e. In determining the classification of streets where a loop configuration is formed and vehicles have multiple access options, the classification should be based on an analysis of routes and destinations on individual road segments rather than the full street length. Starting at an intersection with an existing street, proposed new streets shall meet the highest applicable classification of Table 401.13.16-2 based on the total number of dwelling units expected to travel that street or street segment. At each internal intersection, the street classification shall be reduced to reflect the number of dwelling units served.

TABLE 401.13.16-2

<u>ITEM</u>	<u>Sub-collector Streets</u>	<u>Village Public Street</u>	<u>Rural Public Street</u>	<u>Rural Public Easement Street</u>	<u>Minor Rural Street</u>
A. <u>Minimum width right of way</u> ¹	60 ft 60	__ ft 50	__ ft 50	__ ft 50	__ ft
B. <u>Minimum grade</u> .	5 percent ² .	5 percent ² 1	__ percent 1	__ percent 1	__ percent
C. <u>Maximum grade</u> 8	__ percent 8	__ percent 10	__ percent	10 percent ³ 10	__ percent ³
D. <u>Maximum grade within 75 ft of intersection</u>	3 percent 3	__ percent 3	__ percent 3	__ percent 3	__ percent
E. <u>Width of shoulders on each side</u>	4 ft (paved) 4	__ ft (paved) 4	__ ft (paved) 2	__ ft (gravel) 2	__ ft (gravel)
F. <u>Minimum travel way width</u> 22	__ ft 20	__ ft 20	__ ft 18	__ ft 16	__ ft
G. <u>Aggregate sub-base course gravel</u>	15 inches 15	__ inches 15	__ inches 15	__ inches 15	__ inches
H. <u>Aggregate upper base crushed gravel</u>	3 inches 3	__ inches 3	__ inches 3	__ inches 3	__ inches
I. <u>Bituminous paving</u> 3-	1/4 inches 3-	1/4 inches 3-	1/4 inches 3-	1/4 inches	
J. <u>Sidewalks (one side min.):</u> <u>Minimum width</u> <u>Aggregate sub-base course gravel</u> <u>Aggregate upper base crushed gravel</u> <u>Bituminous paving</u>	5 ft 8 inches 2 inches 2 inches	5 ft 8 inches 2 inches 2 inches			
K. <u>Minimum curb radii:</u> <u>90 degree intersections</u> <u>Less than 90 degrees</u>	40 ft 40 ft	25 ft 30 ft	25 ft 30 ft	15 ft 20 ft	15 ft 20 ft
L. <u>Minimum dwelling units</u> 51	__	4 26	__ 11	__	2
M. <u>Maximum dwelling units</u>	__ 100	50 50	__ 25	__ 10	__

¹ Where road grading extends beyond the specified right of way width, the right of way shall be widened at that location to include the areas of extended grading

² Increase to 1 percent grade with open drainage system

³ Road sections of less than 500 feet length can add 2 percent to the maximum grade provided that such sections are separated by a minimum distance of 500 feet and do exceed the limitations of Section 401.13.16.A.5 for horizontal curvature of the road.

⁴ Streets serving more than 100 homes shall meet the sub-collector standards with four (4 in) inch pavement per Section 401.13.16 C.2.

f. Dead End Streets

- i. In addition to the design standards in Table 401.13.16-2, dead-end streets shall be constructed to provide a cul-de-sac (circular) turnaround with a travel lane and width equal to the minimum width required for the internal subdivision street.
- ii. The maximum length of a dead end street shall be three thousand (3000 ft) feet.

- iii. A turn around shall be provided for every fifteen hundred (1500 ft) feet of dead end road.
- iv. A minimum of one (1) paper street following the interconnection criteria of Section 401.13.15. C. 1. shall be provided for every fifteen hundred (1500 ft) feet of dead end road.
- v. The length of a dead end street shall be measured from the centerline of the street it accesses to the center of the turnaround.
- vi. The maximum number of homes on a dead end street shall be twenty-five (25).
- vii. The minimum outside travel way radius for cul-de-sac turnarounds shall be forty-two (42 ft) feet and the minimum right of way radius shall be sixty (60 ft) feet.
- viii. Where the cul-de-sac is in a wooded area prior to development, a stand of trees shall be maintained within the center of the cul-de-sac, or be replanted in the event that safe and healthy retention of the trees is not feasible.
- ix. The Planning Board shall require the reservation of a twenty (20 ft) foot easement in line with the street to provide continuation of pedestrian traffic or utilities to the next street. The Board may also require the reservation of a right-of-way easement equal to the right of way width of the internal subdivision street in line with the street to provide continuation of the road where future subdivision is possible.
- x. A T-turn around is permissible for residential subdivisions carrying an ADT of one hundred (100 ft) or less. The turn around area easement shall be located fifty (50 ft) feet from the street terminus and shall have a width equal to the street right of way width, a five (5 ft) foot lot line radius, and a total depth of fifty (50 ft) feet. The travel way of the turnaround shall be the same width as the street it serves and be forty (40') feet in depth, and shall have a curb radius of fifteen (15 ft) feet. The plan shall contain a note indicating that the turn around easement area will be vacated and returned to the lot that contains it in the event the street is extended in the future.
- xi. All driveways located on T-turnarounds shall be located so as to facilitate plowing and storage of snow in accordance with the requirements of Section 401.13.17 E.
- g. Street classifications and public street acceptance policies.
 - i. Sub-collectors, Village Public Streets, and Rural Public Streets generally are designed for full public ownership and maintenance. Sub-collectors and Rural Public Streets carry high volumes of traffic and/or provide through connections between existing streets that improve traffic flows

through the community.

- ii. Rural Public Easement Streets are designed for public winter maintenance under the Town's private road public easement policy. Minor Rural Streets are designed for full private ownership and maintenance under a maintenance agreement or homeowners' association framework.
- iii. All new public streets/easements shall not be isolated from existing public streets/easements by intervening private streets. New public streets/public easements must either intersect existing public streets/easements or there shall be a continuous path from new public street/easements through other new public streets to one or more existing public streets.
- iv. All decisions to accept public ownership or public easements, however, are subject to the discretionary authority of the Town Council, and all proposed streets shall be covered by a private maintenance agreement or homeowners' association framework until they are accepted by the Town. Upon receiving preliminary subdivision approval, applicants are required to seek indication of whether the Town Council is willing to accept public ownership of fee interests or public easements.

3. Stormwater Design Standards

- a. In order to drain stormwater from the surface of roadways, streets shall be crowned such that the pavement slopes from the centerline to the shoulder at a pitch of ¼ inch per foot. For gravel roads, the crown pitch shall be increased to ½ inch per foot.
- b. No storm water shall be permitted to drain across a street or across an intersection.
- c. An adequate piped storm drainage system including appurtenances such as catch basins and manholes shall be provided for proper drainage of storm water collected in Sub-collector and Village Public Streets for sides with esplanades and sidewalks. Appropriate conveyances for outlets to drainage systems must be provided. A minimum easement width of thirty (30 ft) feet is required along the centerline of any pipe system or drainage course. If ponding will occur at culvert inlets or if permanent erosion control measures extend outside of the right of way, then easements on abutting property are required.
- d. All storm water systems for streets shall be designed to meet the criteria of a twenty-five (25-yr) year storm based on rainfall data from the National Weather Service in Gray. Road culverts shall be designed to meet the criteria for a fifty (50-yr) year storm with the low point in the road profile treated to pass storm flows in excess of a 50-year storm without washing out the street. Road culverts shall be aligned to maintain the direction of

natural drainage courses rather than causing such drainage to change directions. Flows shall be computed by a method acceptable to the Town Engineer. Design computations of flows shall be submitted for approval.

- e. The minimum driveway culvert size shall be fifteen (15 in) inches. Larger culverts may be required in some locations based on a stormwater management analysis and plan. Culvert inlets and outlets shall be properly treated with erosion control measures.
- f. Existing downstream drainage facilities shall be studied to determine the effect of development on downstream drainage. The applicant shall demonstrate to the satisfaction of the Town Engineer that the storm drainage will not, in any way, overload existing downstream drainage systems, including any modifications that may be needed to those downstream systems to prevent erosion and/or flooding.
- g. All subdivision streets that lack a piped drainage system shall convey storm water in open ditches or swales meeting the standards and specifications of this ordinance.
- h. All sideslopes of a street shall be graded at a maximum slope of three (3 ft) feet horizontal to one (1 ft) foot vertical from the shoulder to the ditch bottom. Sideslope steepness may be increased to minimize impacts on wetlands or other natural features provided that guardrail and erosion control measures are installed to the satisfaction of the Town Engineer.
- i. All sideslopes shall be finished with loam or other suitable mixture to a minimum compacted depth of four (4 in) inches and seeded or planted as appropriate.
- j. The final grade level of ditch bottoms shall be a minimum of six (6 in) inches below the subgrade level of the street. The sub-base course gravel shall taper and pitch from the travel way and street shoulders to the ditch base for proper drainage of the road base. The base of the ditch shall be a minimum of two (2 ft) feet in width.
- k. All ditch backslopes shall be graded at a maximum slope of two (2 ft) feet horizontal to one (1 ft) foot vertical. All backslopes shall be finished with loam or other suitable mixture to a minimum compacted depth of four (4 in) inches and seeded or planted as appropriate. Erosion control mesh shall be installed on all slopes that are steeper than one (1 ft) foot horizontal to three (3 ft) feet vertical.
- l. Where a cut results in exposed ledge, a side slope no steeper than one (1 ft) foot horizontal to four (4 ft) feet vertical is permitted.

4. Closed Drainage Construction Materials & Standards

- a. Pipes: All drainage piping shall be of plastic or reinforced concrete materials in accordance with Maine Department of Transportation Standard

Specifications.

- b. Manholes: Manholes shall be of precast concrete section construction. Precast sections shall meet the requirements of ASTM Designation C-478. Cones shall be truncated. Castings shall be of cast iron meeting Town of Gray standards. Brick inverts shall be shaped to the crown of the pipe for sizes up to eighteen (18) inches, and to spring line for larger pipes.
- c. Catch Basins: Catch Basins shall be of precast concrete construction. Castings shall be square cast iron as required for the particular inlet condition with the gratings perpendicular to the curb line. All catch basins shall be provided with a Type 1 curb face inlet and transition stones if necessary.
- d. All trenching shall be accomplished in accordance with all appropriate Federal and State safety requirements.
- e. Maximum trench width at the pipe crown shall be the outside diameter of the pipe plus two (2) feet.
- f. Pipe shall be bedded in a granular material with a minimum depth of six (6 in) inches below the bottom of the pipe and extending to six (6 in) inches above the top of the pipe.
- g. Drain alignment shall be straight in both horizontal and vertical alignment.
- h. Manholes shall be provided at all changes in vertical and horizontal alignment, and at all junctions. On straight runs, manholes shall be placed at intervals of no more than three-hundred (300 ft) feet.
- i. Catch basin leads shall enter the drainage system only at manholes. The difference in elevation between the inverts of the lead and the main drain shall not exceed twelve (12 in) inches.
- j. All drain outlets shall be riprapped to prevent erosion. Facilities for energy dissipation shall be provided (e.g., plunge pools).
- k. When used, underdrains shall be laid with perforation down with a backfill of three-quarter (3/4 in) inch crushed stone wrapped in a filter fabric envelope.

5. Curbing Standards

- a. Curbs shall be installed for stormwater purposes and/or to protect the pavement edge from unraveling along parking lanes or in very intensive developments where heavy use may erode the planted area at the edge of the pavement. Curbs for stormwater management shall be contingent on the stormwater design standards specified in Sections 401.13.12 and 401.13.16.A.3.d above.
- b. Curbing shall be in accordance with Section 609 of the Maine Department

of Transportation Standard Specifications except as follows:

- i. Curbing shall be limited to Type 1 (granite stone curbing) and Type 3 (bituminous concrete curbing), or other acceptable materials.
- ii. Bituminous concrete curbing, or other acceptable material, shall have a minimum reveal of six (6 in) inches.
- iii. All curb radii will be of Type 1 (granite stone curbing).
- iv. All curbing on roads proposed for full public ownership and maintenance (paving and plowing) shall be vertical or sloped Type 1 (granite stone curbing).

C. Street Construction Standards

All construction shall comply with the latest revision of the Maine Department of Transportation Standard Specifications. In the event of a conflict between the MDOT Standard Specifications and this Chapter, the more stringent standards shall apply.

1. Roadway Preparation:

- a. Before any clearing has started on the right-of-way, the center line and side lines of the new road shall be staked or flagged at fifty (50 ft) foot intervals for curved sections and one hundred (100 ft) foot intervals for straight sections. The centerline of the roadway shall be the centerline of the right-of-way.
- b. Before grading is started, the entire area within the right-of-way necessary for traveled way, shoulders, clear zones, sidewalks, drainage-ways, and utilities shall be cleared of all stumps, roots, and brush. All shallow ledge, large boulders and tree stumps shall be removed from the cleared area.
- c. All organic materials, boulders, or other deleterious material shall be removed below the subgrade of the roadway. On soils which have been identified by the Town Engineer as not suitable for roadways, a Maine Department of Transportation approved stabilization geotextile shall be used (MDOT Standard Specifications Section 203).
- d. All underground utilities shall be installed prior to paving to avoid cuts in the pavement. Building storm drains and water service connections shall be installed to the edge of the right-of-way prior to paving.

2. Bases and Pavement Thicknesses

The minimum thickness of material after compaction shall meet the specifications in Table 13.16-3:

Table 13.16-3
Minimum Street Materials Thicknesses

<u>Street Materials</u>	<u>Thickness Standards</u>	<u>Subcollector</u>
<u>Aggregate Subbase Course</u>		
Without base gravel 18	___ inch	
With base gravel 15	___ inches	
<u>Crushed Aggregate Base Course</u> (if necessary)	3 inches	
<u>Hot Bituminous Pavement</u>		
Total Thickness 3	___ ¼ inches 4	___ inches
Surface Course (9 mm) 1	___ ¼ inches 1	___ ½ inches
Base Course (19 mm) 2	___ inches 2	___ ½ inches
<u>Surface Gravel</u> (if permissible)	3 inches	

3. Base/Subbase Screening.
 - a. The Aggregate subbase course shall be sand or gravel of hard durable particles free from vegetative matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a three inch square mesh sieve shall meet the screening requirements of Table 13.16-4. Aggregate for the subbase shall contain no particles of rock exceeding six inches in any dimension.

Table 13.16-4
Aggregate Subbase Grading Requirements

<u>Sieve Designation</u>	<u>Percentage by Weight Passing</u> <u>Square Mesh</u>
I f	1/4 inch 25- ___ 70%
	No. 40 0- ___ 30%
t h	No. 200 0- ___ 30%

- b. If the Aggregate Subbase Course is found to be not fine-gradable because of larger stones, then a minimum of three inches of Aggregate Base Course shall be placed on top of the subbase course. The Aggregate Base Course shall be screened or crushed gravel of hard durable particles free from vegetative matter, lumps or balls of clay and other deleterious substances. The gradation

of the part that passes a three inch square mesh sieve shall meet the grading requirements of Table 13.16-5. Aggregate for the base shall contain no particles of rock exceeding two inches in any dimension.

Table 13.16-5
Grading Requirements

<u>Sieve Designation Sieves</u>	<u>Percentage by Weight Passing Square Mesh</u>
1/2 inch 45-	70%
1/4 inch 30-	55%
No. 40 0-	20%
No. 200 0-	5%

4. Pavement Specifications

All pavement installations shall meet the specifications of the Maine Department of Transportation Standards and Specifications Section 401 for Hot Mix Asphalt (HMA).

5. Pavement Joints

Where pavement joins an existing pavement, the existing pavement shall be cut along a smooth line and form a neat, even, vertical joint.

D. Street Survey Monument Standards

1. Stone survey marker monuments with metal detection shall be set at all street corners, angle points. and all points of curvature in each street.
2. Each survey marker shall be set with the top between six (6 in) and twelve (12 in) inches above the finished grade except that the top shall be flush with the finished grade wherever it is located in an area to be plowed for removal of snow or is to be pavement, lawn, or a decorative planting area.
3. The preferred material for all lot corner markers shall be rebar five-eighths (5/8 in) inch in diameter. Alternate acceptable materials for lot corner markers shall be iron pipe one (1 in) inch in diameter and stone monuments four (4 in) inches square.
4. All monuments are to be not less than thirty-six (36 in) inches in total length unless they are drilled at least three (3 in) inches into solid ledge or rock.
5. All monuments shall have the Surveyor's identification suitably attached.

E. Sidewalks.

The Planning Board may require sidewalks along the project frontage and to off-site destinations in any situation where the proximity of the proposed subdivision to existing or proposed neighborhood businesses, schools, community facilities, or other pedestrian destinations suggest sidewalks will be needed. The Planning Board shall determine if sidewalks will be installed on one side or both sides of the internal street(s).

1. Location.

Sidewalks may be located adjacent to the curb or shall be located a minimum of five (5') feet from the curb facing or edge of shoulder if the street is not curbed.

2. Bituminous Sidewalks.

- a. The “subbase” aggregate course shall be no less than twelve inches thick after compaction.
- b. All pavement installations shall meet the specifications of the Maine Department of Transportation Standards and Specifications Section 401 for Hot Mix Asphalt (HMA).

PART 3 – Amend the Gray Street Construction Ordinance (Chapter 400) by amending it as follows:

Note: Part 3 of the proposed amendments removes all standards for streets in subdivisions subject to Planning Board approval from the Street Ordinance.

Delete Sections 1.8 through 2.2.5 and Sections 2.3 to 3.7 from Chapter 400 in their entirety.

PART 4 – Amend the Gray Street Construction Ordinance (Chapter 400) by amending Section 2 as follows:

Note: Part 4 of the proposed amendments changes the process and requirements for public acceptance of streets to correspond with provisions in the revised Subdivision Ordinance.

Section 2 Acceptance of a Public Street or Public Easement for Winter Maintenance

~~Approval by the Town Engineer of a proposed public street shall not be deemed to~~

~~constitute nor be evidence of acceptance by the Town of said public street. Before the process of acceptance of a public street begins, the street must satisfy Section the 2.1.1 or Section 2.1.2 of this Ordinance, must have been properly inspected, and must have gone through one Winter and Spring season before any Town Council action for acceptance. Final acceptance of a public street shall be only by affirmative vote of the Town Council.~~

2.1 Purposes & Intent

- A. Sub-collectors, Village Public Streets, and Rural Public Streets generally are designed for full public ownership and maintenance. Sub-collectors and Rural Public Streets carry high volumes of traffic and/or provide through connections between existing streets that improve traffic flows through the community.
- B. Rural Public Easement Streets are designed for public winter maintenance under the Town's private road public easement policy. Minor Rural Streets are designed for full private ownership and maintenance under a maintenance agreement or homeowners' association framework.
- C. All new public streets/easements shall not be isolated from existing public streets/easements by intervening private streets. New public streets/public easements must either intersect existing public streets/easements or there shall be a continuous path from new public street/easements through other new public streets to one or more existing public streets.
- D. All decisions to accept public ownership or public easements, however, are subject to the discretionary authority of the Town Council, and all proposed streets shall be covered by a private maintenance agreement or homeowners' association framework until they are accepted by the Town. Upon receiving preliminary subdivision approval, applicants are required to seek indication of whether the Town Council is willing to accept public ownership of fee interests or public easements.

2.2 Public Easement for Winter Maintenance

Roads proposed for winter maintenance under a public easement shall meet the following criteria:

- A. Requests for public easement road acceptance shall be made in writing to the Town Manager by the road association president.
- B. Each respective road or homeowners association shall be incorporated, unless all property owners sign an individual public road easement and a hold harmless release.
- C. Each respective road association and each individual property owner if required shall grant a recorded public easement.
- D. Each respective road association and each individual property owner if

required shall sign a general release to the Town granting permission to enter upon the road and to perform maintenance.

- E. Each respective road association and each individual property owner if required shall agree and sign to hold the Town harmless for any damages that may be caused in the process of providing maintenance services.
- F. The traveled portion of the road shall be adequately maintained in good repair by the respective road association as determined by the Town's Public Work's Director.
- G. There shall be adequate vehicle and plow turnaround(s).
- H. All costs associated with each public easement road acceptance shall be borne by the respective road association and property owners. Said costs may include public easement recording fee, published notices and others costs deemed by the Town Council.
- I. Upon written application to the Town Council and demonstration of extraordinary circumstances the Town council has sole authority to waive or modify requirement of the road adoption criteria.
- J. Accompanying each road association request for acceptance shall be separate, written recommendations by the Public Works Director and Town Engineer either supporting or not supporting public easement acceptance and their reasoning for the recommendation. A copy of the request and recommendations shall be forwarded to the Town Planner for notification purpose prior to public easement acceptance.
- K. In order to provide an efficient and workable relationship between the Town and the road associations, each respective road association president or designee shall be the liaison between the Town and road association. Each road association is responsible to inform the Town Manager, in writing, identifying their respective association president or designee, address and telephone number by September 1st of each respective year.
- L. Maintenance services covered under this policy shall consist only of snowplowing and road sanding. The provision of required materials: road sand and road salt is implied by this policy. All other maintenance aspects, materials and requirements of public easement roads accepted are the responsibility of the road association and its members, including road grading. The Town does not assume or accept liability for any defects in or lack of repair to public easements.
- M. If a public easement's traveled portion is paved, the public easement road association and abutting property owners agree the Town assumes no responsibility for damages or injury to the paved surface.
- N. As a for public easement road acceptance and road maintenance, each road association recognizes the Town of Gray responsibilities shall be limited to

the scope of this policy and to hold the Town harmless regarding any liability for any negligent damage to property: including but not limited to: driveways, mail boxes, lawns, trees, curbing, shrubs or property markers. Each road association or individual benefiting agrees to hold the Town of Gray, its officers, agents and employees harmless. This clause does not mean or intend to hold harmless private contractors for their negligent acts.

- O. If the Public Works Director determines that an emergency exists on any public easement way due to heavy snowfall and/or narrowing of the travel ways due to snow banks, the Public Works Director and the Town Manager may take such additional snow plowing and/or removal action as he reasonably deems fit to abate the emergency. The Public Works Director shall keep accurate financial records of any such emergency work and report the same to the Town Manager at least monthly.

2.3 Public Easement for Winter Maintenance Standards for Pre-1998 Roads

In addition to the requirements of Section 2.2 above, roads proposed for winter maintenance under a public easement that were constructed before October 1, 1998 shall meet the following standards:

- A. There shall be at least four (4) year around dwellings served on the road under consideration.
- B. An easement of at least twenty (20 ft) feet in width shall be provided.
- C. The traveled portion of the road must be at least ten (10 ft) feet in width with an overall clearance width of eighteen (18ft) feet.
- D. The traveled portion of the road shall have an adequate gravel base with a minimum depth of six (6 in) inches.
- E. The traveled portion of the road's overhead clearance shall be a minimum of thirteen and half (13½ ft) feet.

2.4 Public Easement for Winter Maintenance Standards for Post-1998 Roads

In addition to the requirements of Section 2.2 above, roads proposed for winter maintenance under a public easement that were constructed after October 1, 1998 shall meet the following standards:

- A. The road must meet all standards of the Subdivision Ordinance for Rural Public Easement Streets or Rural Public Streets, including paving. Rural Public Streets will not be fully accepted under Section 2.5 below unless they provide public benefits indicated in Section 2.1 A above, but they will be eligible for winter maintenance public easements.
- B. No public easement may be submitted for acceptance unless at least seventy-five (75%) percent of the housing units on that street or within that subdivision phase have received their certificates of occupancy.

2.5 Requirements for Full Public Acceptance of Streets

- A. The owner(s) shall give the Town a deed to the property within the boundaries of the street at the time of its acceptance by the Town and a separate deed to areas reserved for future development of streets.
- B. A plan of said street or way shall be recorded in the Cumberland County Registry of Deeds at the time of its acceptance.
- C. A petition for the acceptance of said street or way shall be submitted to the Town Council upon a form to be prescribed by the Town Attorney. Said petition shall be accompanied by a plan, profile and cross section of said street or way as follows:
 - 1. A plan drawn to a scale of 50 feet to 1 inch, and to be on one or more sheets of paper not exceeding 24 inches by 36 inches in size or in digital format as prescribed by the Planning Board.
 - 2. A profile of said street or way drawn to a horizontal scale of 50 feet to 1 inch and a vertical scale of 5 feet to 1 inch.
 - 3. A typical cross section of said street or way, drawn to a horizontal scale of 5 ft. to 1 inch and a vertical scale of 5 ft. to 1 inch.
- D. Streets to be offered to the town for acceptance must have a written report of inspection prepared by the Town Engineer that affirms compliance with the standards ~~required in Table 2.1~~ of the Subdivision Ordinance for its road classification at the completion of construction. Final Certification by the Town Engineer shall be done only after the road has gone through one winter and spring season ~~the time period stipulated in 2.2 above. Both reports shall accompany the petition.~~
- E. No street or way shall be accepted by the Town Council until the Planning Board and the Town Engineer shall have made a careful investigation thereof, and shall have reported to the Town Council their recommendations in writing. Such results shall include at a minimum of one core sample for the road proposed.
- F. No street or way may be accepted unless ~~the Town Council finds that the acceptance is in the public interest. In cases of subdivisions,~~ at least seventy-five (75%) percent of the housing units on that street or within that subdivision phase must have received their certificates of occupancy before any acceptance by the Town Council.

**PART 5 – Amend the Gray Subdivision Ordinance (Chapter 401) by amending
Section 401.10.1 as follows:**

Note: Part 5 of the proposed amendments uses the inspection fee system of the Street Construction Ordinance rather than the escrow fee system of the Subdivision Ordinance to cover inspections of road construction by the Town Engineer.

401.10.1 Inspection of Required Improvements

- A. At least five days prior to commencing construction of required improvements, the subdivider or builder shall:
1. **Notification** - Notify the Town Engineer and Code Enforcement Officer in writing of the time when proposed to construction of such improvements will commence, so that the Town can arrange for inspections to assure that all municipal specifications, requirements, and conditions of approval are met during the construction of required improvements, and to assure the satisfactory completion of improvements and utilities required by the Planning Board.
 2. **Inspection Escrow Fees** - Deposit with the Town Manager a check in the amount specified in the Schedule of Fees adopted by the Town Council for the inspection of the project infrastructure construction. The fee shall be based on two (2) percent of the cost of construction of the road and utilities, or the estimated cost of inspection estimated by the Town Engineer. ~~If the balance in this special account is drawn down by seventy five (75%) percent, the Town shall notify the applicant, and require that the balance be brought back up to the original deposit amount. The Town shall continue to notify the applicant and require a deposit as necessary whenever the balance of the escrow account is drawn down by seventy five (75%) percent of the original deposit, but the applicant shall be responsible for all inspection costs incurred by the Town. Any balance in the escrow account remaining after a decision on the final plan application by the Board shall be returned to the applicant. The applicant can reduce inspection costs by ensuring that construction is completed in accordance with the approved plans and standard engineering practices.~~