

TOWN OF GORHAM, ONTARIO COUNTY, NEW YORK
DESIGN AND CONSTRUCTION STANDARDS FOR LAND DEVELOPMENT

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DESIGN AND CONSTRUCTION STANDARDS FOR LAND DEVELOPMENT

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INTRODUCTION

These Standards have been prepared to provide guidelines for, and control over, the development of land within the Town of Gorham.

The intent is to assure proper design and construction of facilities which will be dedicated to the Town, and to assure that development is compatible with the long range development plans of the Town.

It is the intent of these Standards to conform with the Code of the Town of Gorham or general control of development by the Town Board and Planning Board, and it is intended to supplement such policies by providing the technical details necessary to carry out general policy.

These Standards do not include control over building design or construction. These matters are covered elsewhere by Gorham Town Code.

These Standards are divided into four parts. The first part is entitled General Requirements which deals with general procedures. The intent is to provide a guide which will assist in expeditious approval of development plans and completed works which are to be dedicated to the Town.

The second part is entitled Design Standards and provides a guide for Developers' Engineers in the preparation of plans and other information for the development of land.

The third part is entitled Construction Standards and provides the construction specifications. Developers and their Engineers are responsible that their Contractors follow these Specifications in constructing dedicated facilities.

The fourth part is entitled Standard Details and provides detail drawings that supplement the Construction Standards.

The fifth part is entitled Access Management and provides requirements for managing access to land development and orderly layout and use of land.

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SECTION 1. GENERAL REQUIREMENTS

SECTION 1. GENERAL REQUIREMENTS

1.1. DEFINITIONS

The terms used in these Design and Construction Standards are defined in the Town of Gorham Subdivision Regulations, Chapter 32 and have the meanings assigned to them in the Subdivision Regulations.

1.2. REQUIREMENTS FOR SUBDIVISION OF LAND

Whenever any subdivision of land is proposed, before any permit for the erection of a permanent building in such proposed subdivision is granted, and before any subdivision plat may be filed in the office of the Ontario County Clerk, the subdivider or his authorized agent shall apply for and secure approval of such proposed subdivision in accordance with the procedures established by the Town.

The Planning Board, when reviewing a minor subdivision may waive, at its discretion, any part of these procedures. However, the Planning Board requires as a minimum the submission of a minor subdivision plan which shall indicate the subdivider's plans for the ultimate disposition of his land.

1.3. SUMMARY OF PROCEDURES FOR SUBDIVISION OF LAND

1.3.1. APPLICATIONS AND REVIEW.

The Developer shall file applications on forms provided by the Town Code Enforcement Officer, pay any application fees and submit information required for each phase of the review process. All required forms and information must be submitted to the Town Code Enforcement Officer within the time specified in the Subdivision Regulations.

The application and review process for major subdivisions includes the following phases:

1. Sketch Plan Review.
2. Preliminary Plan Review.
3. Final Plan Review.

The application review process for minor subdivisions and for site plans is a one step process.

Sections 1.8. through 1.12. include checklists for each phase of review to be used as a guide by the Developer's Engineer in preparing the information required for the application review process. The Developer's Engineer is directed to the text of the Design and Construction Standards for specific design requirements.

1.3.2. PUBLIC HEARING AND APPROVAL.

Upon receipt of a completed application, the Planning Board will hold a public hearing on the proposed project pursuant to provisions of the Subdivision Regulations.

Subdivisions are referred to the Ontario County Planning Board for review and recommendation pursuant to provisions of the Subdivision Regulations.

After the Developer submits all required information, complies with all review comments and meets all other requirements, the final plan may receive Planning Board approval.

1.4. SURETY

The Developer shall submit to the Town a detailed cost estimate of the facilities to be constructed. Surety shall be issued in favor of the Town in the amount determined by the Town, and shall include sufficient funds for construction of all dedicated facilities, all drainage facilities, erosion and sedimentation control, and for construction administration and inspection by the Town. The Developer shall obtain letter of credit from a bank that will notify the Town 30 days prior to expiration of the letter of credit.

Sureties acceptable to the Town include letter of credit, certified check or escrow account.

1.5. EASEMENTS

The Developer shall provide permanent easements to the Town for dedicated facilities located outside dedicated Town road rights-of-way. Easements shall also be provided for storm sewers, drainage swales, stormwater management facilities, channels and streams on private property.

Easements shall be prepared prior to the approval of the final subdivision plat. The Developer is responsible for preparation of easement descriptions and maps, transfer of the easements to the Town, and recording in the Ontario County Clerk's Office.

The Town reserves the right to require easements for anticipated future facilities and roads, where in the opinion of the Town such easements are necessary for planning future development of adjacent land.

1.6. CERTIFICATES OF OCCUPANCY AND COMPLETION

Certificates of Occupancy shall not be issued until the binder course is placed on all dedicated and private roads. Where sidewalks are part of the improvements, the Certificate of Occupancy shall not be issued until sidewalks are constructed in the area affected by such certificate.

Certificate of Completion shall be issued only after completion and acceptance of dedicated utilities, grading, drainage systems and erosion control.

1.7. REQUIREMENTS FOR APPROVAL OF DEDICATION

1.7.1. COMPLETION OF CONSTRUCTION.

Construction of all facilities to be dedicated shall be fully completed by the Developer, and inspected and found satisfactory by the Town.

1.7.2. GRADING.

Final grading and seeding shall be completed within the right-of-way and all excess excavated material shall be removed from the site.

1.7.3. MONUMENTS AND PROPERTY CORNER MARKERS.

Monuments shall be set in the required locations as shown on the final subdivision plat approved by the Planning Board, and shall be on the record drawings. All permanent property corner markers shall be in place for each lot.

1.7.4. STREET AND TRAFFIC SIGNS.

All street and traffic signs shall be set in their designated locations.

1.7.5. ROADS AND STREETS.

➤ Road and streets offered for dedication shall be completed and shall stand over one winter season prior to acceptance by the Town.

Any agreement to maintain a road or street prior to dedication shall be developed in conjunction with the Town Highway Superintendent, subject to review by the Attorney for the Town and approval of the Town Board.

1.7.6. RECORD DRAWINGS.

Record drawings of all dedicated facilities, private underground utilities, and all test results shall be submitted to the Town.

Record drawings shall be prepared by the Developer's design engineer and two (2) prints and one (1) reproducible on polyester film shall be submitted to the Town. The following information shall be shown on the record drawings:

1. Location, sizes, elevations, lengths, slopes and invert and top elevations of all manholes, inlets, sanitary sewers and storm sewers.
2. Location and significant elevations of drainage swales and other key surface elevations.

1.7.6. RECORD DRAWINGS. (continued)

3. The size and location of all water mains, valves, curb stops and hydrants including ties from permanent structures.
4. Finished profiles and typical cross-sections of roads and streets.
5. Location of building sewer, storm lateral and water service curb box at the property line of each individual lot.
6. Any other significant information necessary for the operation or maintenance of the system.
7. Location of buildings and other permanent features.
8. All rights-of-way and easements.
9. Monuments.

1.7.7. MAINTENANCE BONDS.

Two-year Maintenance Bonds shall be submitted to the Town by the Developer, or the Developer and Contractor having constructed the facilities to be dedicated, for all improvements to be offered to the Town for dedication. Maintenance Bonds shall be written by a surety licensed to do business in New York State and they shall be in the amount of ten percent (10%) of the final construction cost, as determined by the Engineer working on the project for the Town.

1.7.8. FINAL RELEASE OF FUNDS.

The Town Board will authorize release of funds retained in the surety upon recommendation from the Engineer for the Town, after receipt of a two-year Maintenance Bond and certified record drawings. Partial releases from the surety may be granted by the Town Board as individual components of the development are completed. Partial releases shall not be construed as acceptance of the work by the Town.

If the required improvements are not completed within the period established or extended by the Town, the surety may be declared in default and the Town may collect the amount payable thereunder. Upon receipt of such amount, the Town shall complete such improvements as were covered by the surety and are commensurate with the extent of building development which has taken place in the subdivision.

1.7.9. CHECKLIST FOR DEDICATION OF LAND DEVELOPMENT PROJECTS

	<u>DATE</u>
1. Construction of All Dedicated Utilities Completed	_____
2. Testing of All Dedicated Utilities Completed	_____
3. Water Sample Analysis Received	_____
4. NYS Department of Health Completed Works Certificate	_____
5. Notify NYSDEC of sanitary sewer completion, when required.	_____
6. Sanitary Sewer System Approved by Town and/or County Sewer District	_____
7. New York Board of Fire Underwriters Certificate for Pumping Station	_____
8. Construction of Dedicated Roads Completed	_____
9. Grading & Seeding of R-O-W Completed	_____
10. Construction of All Drainage Facilities Completed	_____
11. Utility Easements & Right-of-Way Descriptions Received from Developer	_____
12. Monuments & Property Corner Markers Set	_____
13. Street & Traffic Signs Placed	_____
14. Trees & Landscaping Completed	_____
15. Record Drawings Completed by Developer	_____
16. Operation & Maintenance Manuals for Pumping Stations and Control Vaults Provided by Developer	_____
17. Review and approval of Roads by Town Highway Superintendent	_____
18. Review and approval of Storm Sewer System by Highway Superintendent	_____
19. Review and approval by Town Water & Sewer Departments of:	
Water System	_____
Sanitary Sewer System	_____
20. Review and approval by Code Enforcement Officer	_____
21. Maintenance Bond Posted by Developer or Developer & Contractor	_____
22. Final Release of Surety Approved by Town Board	_____
23. Town Board Resolution Accepting Dedicated Facilities	_____

1.8. SUBMISSION REQUIREMENTS FOR MINOR SUBDIVISION PLAN.

Minor Subdivision review is a one step process. The following checklist is provided as a guide. Refer to the text of Design and Construction Standards for specific requirements.

1.8.1. GENERAL.

1. Plan size not more than 36" x 48".
2. Scale not less than 1" = 100'.
3. Name, address and signature of Owner.
4. Subdivision name.
5. Name, address, seal and signature of Engineer or Surveyor who prepared plan.
6. North arrow, date and location map.
7. Boundaries including bearings and distances of entire property being subdivided and of proposed lots.
8. Names of Owners of adjacent lands.
9. Covenants, easements or deed restrictions affecting the proposed subdivision.
10. Land features including creeks, springs and woods.
11. Ground contours for parcel and parcels adjacent to the tract to be subdivided, at intervals of not more than ten (10) feet of elevation.
12. Finished floor elevations for proposed houses or buildings.
13. Finished grade of houses minimum one (1) foot higher than pavement.
14. Zoning District.
15. Easements provided for all dedicated facilities located outside road right-of-way.
16. Easement descriptions.
17. Bearings and distances for easements shown on Plan.
18. Note on Plan that construction shall conform to the Town of Gorham Standards.
19. Location of proposed project in relation to identified wetlands and to 100-year flood plain.
20. Minimum 10' lawn around primary buildings with a 2% or greater slope providing positive drainage away from building, with spot elevations at foundation and at limit of 10' area.

1.8.2. WATER DISTRIBUTION SYSTEM.

1.8.2.1. Public Water Supply.

1. Location and size of water mains, including nearest hydrant.
2. Location, size and material of proposed water service.
3. Meter pits provided for water services in excess of 250 feet as measured from house to distribution main. Typical detail provided.
4. When polyethylene water services are proposed, copper tubing shall be used between the corporation stop and the curb stop when the water service extends under the road.

1.8.2.2. Private Water Supply.

1. Location of wells, including yield and potability analysis.
2. Note indicating well to be sampled for adequate quantity and required quality and that a laboratory report be furnished to the Town before a building permit is issued.
3. Minimum required separation distances between well and subsurface sewage disposal systems and property lines.

1.8.3. SANITARY SEWER SYSTEM.

1.8.3.1. Individual Subsurface Disposal Systems.

1. Percolation and deep hole test results certified by Licensed Professional Engineer or Licensed Surveyor.
2. Locations for two (2) percolation tests and a deep hole shown on plan for each proposed absorption field.
3. Sewage disposal system including design data and construction details as specified in Section 2.5.3.
4. Soils which have any percolation test results faster than 5 minutes per inch for any lots shall not be used for absorption fields and seepage pits. If percolation rates are faster than 5 minutes per inch, the Developer's Engineer should evaluate whether the soils can be modified to meet the requirements of the Design and Construction Standards.
5. Design of sewage disposal system should include basis of design, critical inverts for septic tank, distribution box and ends of leachlines and size of septic tank.
6. Garbage grinders require additional 250 gallons of septic tank capacity and 7 square feet of surface area.

1.8.3. SANITARY SEWER SYSTEMS. (continued)

1.8.3.1. Individual Subsurface Disposal Systems. (continued)

7. Additional 50% of required absorption field area provided for expansion and future replacement and shown on Plan.
8. Separation distance of four (4) feet provided between the bottom of the absorption field trench and seasonal high groundwater, bedrock or impervious layer.
9. Minimum horizontal separation distances for subsurface sewage disposal systems required by the NYS Department of Health.
10. Note included on plan that construction of the sewage disposal system shall be inspected and certified by the Design Engineer.
11. An area 10 feet beyond all sides of the absorption field indicated to be kept free of trees.
12. Cleanouts for building sewer laterals provided every 100 feet and at horizontal bends.
13. Approximate locations of existing sewage disposal system and water supply for parent parcel.
14. Certification by Licensed Engineer that existing sewage disposal system is functioning.

1.8.3.2. Public Sanitary Sewer System.

1. If connection to existing public sewers are proposed, all requirements of the Design and Construction Standards regarding sanitary sewers shall apply.
2. Plan shall include location, size and material of sanitary sewer lateral.

1.8.4. DRAINAGE SYSTEM.

1. Drainage Study Map.
2. Grading plan including existing and proposed contours at intervals of not more than two (2) feet. (See 1.8.1.20. on page 1-6.)
3. Drainage easements provided for storm sewers and inlets not located in right-of-way, detention facilities, and swales or streams that carry uphill drainage across downhill lots.

1.8.5. EROSION AND SEDIMENT CONTROL.

1. Erosion control plan showing locations and details of erosion control measures.
2. Swales and turf-lined channels have slope not less than 1%.
3. The requirements of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities including a Stormwater Pollution Prevention Plan and Notice of Intent shall be met for all developments disturbing more than one (1) acre.

1.8.5. EROSION AND SEDIMENT CONTROL. (continued)

4. The requirements of Town Code, Chapter 35 - Soil Erosion and Sedimentation Control shall be met for all disturbances less than one (1) acre as required in the Town's Limited Development Overlay District (LDO), Chapter 31 §31.19.

1.8.6. ROADS AND STREETS.

1. Adjacent roads including rights-of-way, ditches, culverts and pavement.
2. Driveways including sight distances.
3. Maximum driveway grade not to exceed 10%.
4. Adequate foundation course provided for driveway to support emergency vehicles where driveways exceed 200 feet in length or have a non-linear alignment. Vehicle turnaround also provided.
5. Monumentation consisting of iron pins for site boundary indicated on the plan.

1.9. SUBMISSION REQUIREMENTS FOR SKETCH PLAN FOR MAJOR SUBDIVISION.

The Sketch Plan is an informal schematic presentation of existing features and of proposed development, and shall provide the following information:

1.9.1. GENERAL.

1. Plan size not more than 36" x 48".
2. Scale not less than 1" = 100'.
3. Name or title of proposed project.
4. Name and address of subdivider or developer.
5. Name, address, seal and signature of Professional Engineer, Licensed Surveyor or Licensed Landscape Architect who prepared Plan.
6. Written, clear statement of subdivider's intent.
7. North arrow, graphic scale, date and general location map.
8. Tax Map available from Ontario County Real Property Services with property proposed for subdivision outlined and with adjoining property owners shown.
9. Ground contours for parcel and parcels adjacent to the tract to be subdivided, at intervals of not more than ten (10) feet of elevation.
10. All pertinent topographic features of the parcel to be subdivided and the adjoining tract, including existing buildings, watercourses, water bodies, swamps and wooded areas. Features to be retained and to be removed shall be so indicated.
11. If the subdivider intends to develop the tract in stages, the entire tract shall be shown, with anticipated stages and time schedule indicated. All other lands contiguous to the proposal owned by the subdivider shall be shown on the map with approximate area.
12. Zoning district within the tract and any other legal restrictions of use.
13. Names of owners of adjacent lands and names of adjacent subdivisions within 200 feet of the parcel to be subdivided.
14. Location of proposed project in relation to identified wetlands and to 100-year flood plain.

1.9.2. WATER DISTRIBUTION SYSTEM.

1. Schematic plan of water system and proposed source of water supply.

1.9.3. SANITARY SEWER SYSTEM.

1.9.3.1. Individual Subsurface Sewage Disposal System.

1. Engineer's preliminary report on soil and groundwater conditions, as specified in Section 2.5.3., based on percolation and deep (minimum eight (8) feet depth) test pit results. Percolation test and deep test pit data must be provided in number and at locations such that at least one percolation test and deep test pit is located within a 200 foot radius of each on-site sewage disposal system proposed.
2. Schematic plan of subsurface sewage disposal system.

1.9.3.2. Public Sanitary Sewer System.

1. Schematic plan of sanitary sewer system.

1.9.4. DRAINAGE SYSTEM.

1. Drainage study map with schematic plan of proposed system for storm water drainage.

1.9.5. SEDIMENT AND EROSION CONTROL.

1. Schematic plan of proposed system for sediment and erosion control.

1.9.6. ROADS AND STREETS.

1. Proposed street lines, lot lines, easements, and areas to be dedicated.

1.10. SUBMISSION REQUIREMENTS FOR PRELIMINARY PLANS FOR MAJOR SUBDIVISION.

In addition to the requirements for Sketch Plan, the following checklist is provided as a guide. Refer to the text of Design and Construction Standards for specific requirements.

1.10.1. GENERAL.

1. If more than one sheet is required to show entire project, an index map shall be provided.
2. Scale not less than 1" = 100'.
3. Property boundaries including bearings and distances.
4. Existing culverts, water mains, storm sewers and sanitary sewers nearby and within the development, with their location, size, type and approximate elevation and gradients.
5. The approximate lines of proposed lots, the acreage contained in each lot and lot numbering.
6. The approximate lines and purposes of proposed easements.
7. The approximate location and dimensions of areas proposed for parks, playgrounds or other permanent open space.
8. The location of any municipal boundary, existing special district lines and existing zoning and zoning district lines within the tract.
9. Indications of any potentially nonconforming lots, showing required and actual area, yards and setbacks.
10. Typical lot layout if utility services not shown for each lot.
11. Finished Floor elevations for each proposed house or building.
12. Minimum 10' lawn around primary buildings with a 2% or greater slope providing positive drainage away from building, with spot elevations at foundation and at limit of 10' area.

1.10.2. WATER DISTRIBUTION SYSTEM.

1.10.2.1. Public Water Supply.

1. Location and size of existing water main including nearest hydrant.
2. Proposed source of water supply and preliminary plan of water system including water main sizes and hydrant locations.
3. Location, size and material of proposed water services.
4. Meter pits provided for water services over 250 feet in length as measured from the house to the existing water main. Include Typical Detail on Detail Sheet.
5. Where polyethylene water services are proposed, copper tubing shall be used between the corporation stop and curb stop when the water service extends under the road.

1.10.2.2. Private Water Supply.

1. Location of wells, including yield and potability analysis.
2. Note indicating well to be sampled for adequate quantity and required quality and that a laboratory report be furnished to the Town before a building permit is issued.
3. Minimum required separation distances between well and subsurface sewage disposal systems and property lines.

1.10.3. SANITARY SEWER SYSTEM.

1.10.3.1. Individual Subsurface Sewage Disposal Systems.

1. Sewage disposal system including design data and construction details as specified in Section 2.5.3.
2. Percolation and deep hole test results certified by Licensed Professional Engineer or Licensed Surveyor.
3. Locations for two (2) percolation tests and a deep hole shown on plan for each proposed absorption field.
4. Soils which have any percolation test results faster than 5 minutes per inch for any lots shall not be used for absorption fields and seepage pits.

1.10.3. SANITARY SEWER SYSTEM. (continued)

1.10.3.1. Individual Subsurface Sewage Disposal Systems. (continued)

5. Design of sewage disposal system should include basis of design, critical inverts for septic tank, distribution box and ends of leachlines and the size of septic tank.
6. Garbage grinders require additional 250 gallons of septic tank capacity and 7 square feet of surface area.
7. Additional 50% of required absorption field area provided for expansion and replacement, and shown on Plan.
8. Separation distance of four (4) feet required between the bottom of the absorption field trench and seasonal high groundwater level, bedrock and impervious layer. Separation distance shall be shown on Typical Trench Detail.
9. Minimum horizontal separation distances for subsurface sewage disposal systems conform to NYS Department of Health requirements.
10. Note included on the plan that the construction of the sewage disposal system shall be inspected and certified by the Design Engineer.
11. An area 10 feet beyond all sides of the absorption field indicated to be kept free of trees.
12. Cleanouts for building sewer laterals provided every 100 feet and at horizontal bends.
13. Locations of existing sewage disposal systems and water supply shown for parent parcel and adjacent lots.
14. Certification provided by Licensed Engineer that the existing sewage disposal system is functioning.

1.10.3.2. Public Sanitary Sewer System.

1. Plans and profiles shall show manhole stationing, size of sewers, surface and invert elevations at manholes, grade of sewers between adjacent manholes, and details of all standard and special appurtenances and structures.

1.10.3. SANITARY SEWER SYSTEM. (continued)

1.10.3.2. Public Sanitary Sewer System.(continued)

2. Sanitary sewers shown at sufficient depth to provide service to basements.
3. Sanitary manholes placed not more than 300 feet apart.
4. Vertical separation distance of 2 feet provided between parallel sanitary sewers and storm sewers to provide clearance for crossing of building sewers and drains.
5. Location and size of proposed sanitary sewer laterals.

1.10.4. DRAINAGE SYSTEM.

1. Drainage Study Map.
2. Plan of storm drainage system.
3. Calculations for sizing of storm sewers, culverts, and channels.
4. Storm sewer manholes placed not more than 300 feet apart.
5. Runoff calculations for the undeveloped site based on a 10-year storm frequency.
6. Runoff calculations for the developed site based on a 10-year storm frequency.
7. Calculations for determination of required storage volume.
8. Storage volume provided.
9. Design high water level elevations for storm frequencies being evaluated.
10. Controlled outlet structure provided for design year flows.
11. Anti-vortex device and trash rack provided for outlet structure.
12. Outlet pipe sized to handle flows in excess of design flows.
13. Calculations for flow through outlet structure that shows a gradual release in flow from the pond not to exceed the existing flow.
14. Controlled overflow provided for flows in excess of design storm flows.
15. Calculations should be provided for the sizing of weir, trickle tube, and the inlet and outlet pipes for the outlet structure.

1.10.4. DRAINAGE SYSTEM. (continued)

16. Invert elevations for the inlet and outlet pipes, orifices and top of the outlet structure and the elevation of the overflow spillway.
17. Minimum 3 feet of freeboard provided above design high water level.
18. Controlled overflows using emergency spillways designed with spillway crest no less than 2 feet below top of pond embankment and 1 foot above design high water level.
19. Cross-section through detention pond from inlet to outlet including the elevation of the top of embankment and design high water level.
20. Concrete gutter provided in pond bottom to carry low flows.
21. Pond embankments minimum side slope of 1V:3H
22. Seepage control collars provided for piping through pond embankment.
23. Evaluation of the effect of flows in excess of design flows on detention facility and outlet structure.
24. Evaluation of the downstream facilities to determine if the existing facilities have sufficient capacity to accept the anticipated concentrated flows from the proposed project.
25. Minimum 10' lawn around primary buildings with a 2% or greater slope providing positive drainage away from building, with spot elevations at foundation and at limit of 10' area.

1.10.5. SEDIMENT AND EROSION CONTROL.

1. A preliminary grading plan of the site, showing locations and approximate size of cuts and fills and cross sections for any final grading steeper than three (3) horizontal to one (1) vertical.
2. A tracing overlay showing soils and their classification and those areas, if any, with moderate to high susceptibility to erosion. For areas with potential erosion problems, the developer shall also include a description and outline of existing vegetation.
3. Preliminary erosion control plan including details of standard and special structures.
4. Rip rap provided at the ends of storm sewers where discharge is into swales, turf-lined channels and detention pond.

1.10.6. STREETS AND ROADS.

1. Existing street immediately adjoining and within the development and the distance to the nearest major street intersection.
2. The approximate lines and grades of proposed streets and sidewalks, and the names of the proposed streets.
3. Maximum grade of 8% for local streets. Refer to appropriate sections of the Design and Construction Standards for additional information regarding design.
4. Temporary turnarounds provided at temporary dead ends of subdivision roads.
5. Sight distances indicated.
6. Driveway locations shown.
7. Maximum driveway grade not to exceed 10%.
8. Adequate foundation course for driveway to support emergency vehicles provided for proposed driveways which exceed 200 feet in length or have a non-linear alignment. Vehicle turnarounds also provided.

1.10.7. PRELIMINARY ENGINEERING REPORT.

A preliminary engineering report is required as part of the preliminary plan review for all major subdivisions and shall include as a minimum the following information:

1. Basic project information including total acreage, number of lots, minimum lot size, estimated population, phasing of project, and general description of proposed development.
2. Water system preliminary design including estimated consumption, source of supply, pressures, and computation of required and available fire flows. If private wells are proposed, supplementary data relative to water supply and test wells shall be provided and certified by the Developer's Engineer.
3. Sanitary sewer system preliminary design including estimated flows and summary of design data as specified in Section 2.5.3.

1.10.8. PRELIMINARY DRAINAGE REPORT.

A preliminary drainage report is required as part of the preliminary drainage plan for all major subdivisions and for other projects when necessary in the opinion of the Engineer for the Town, and shall include as a minimum the following information:

1. Run-off calculations from the undeveloped site and from the developed site.
2. Storm sewer, culvert and channel sizing, showing the basis of design.
3. Intended method of storm water disposal.
4. Erosion control plan including run-off control measures during grading and construction to limit erosion and sedimentation.
5. Design of storm water detention facilities.
6. A Preliminary Stormwater Pollution Prevention Plan is required for all projects disturbing more than one (1) acre in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity, and complying with Town Code Chapter 35 - Soil Erosion and Sedimentation Control Local Law.

1.11. SUBMISSION REQUIREMENTS FOR FINAL PLANS FOR MAJOR SUBDIVISIONS.

Final subdivision plans shall include the following separate sheets:

1. Subdivision Plat Record Plan.
2. Grading and Drainage Plan.
3. Utility Plan.
4. Landscaping and Erosion Control Plan.
5. Street Lighting Plan.

In addition to the requirements for Sketch Plan and the Preliminary Plans, the following checklist is provided as a guide. Refer to the text of Design and Construction Standards for specific requirements.

1.11.1. GENERAL.

1. Name, address and signature of owner of record.
2. The layout of proposed lots, including lot numbers and acreage of each lot.
3. Location of all proposed buildings.
4. Grading plan showing existing and proposed contours at intervals of not more than two (2) feet.
5. Landscaping plan for street trees, including varieties and minimum size, and existing trees to be preserved.
6. Street lighting plan showing location of street lighting fixtures.
7. Easements provided for all dedicated facilities located outside road right-of-way.
8. Bearings and distances for easements shown on plan.
9. Plans submitted to NYSDOT, NYSDOH and NYSDEC for approval, if required.
10. Application for the extension of Water District, if required.
11. Application for Water Supply Permit to NYSDEC, if required.
12. Application for the formation of Lighting District, if proposed.
13. Application for the extension of Sewer District, if required.
14. Monuments and property corner markers shown on plans.

1.11.2. WATER DISTRIBUTION SYSTEM.

1.11.2.1. Public Water Supply.

1. Final Plans and details of water distribution system.

1.11.2.2. Private Water System.

1. Final design and details for individual wells.

1.11.3. SANITARY SEWER SYSTEM.

1.11.3.1. Public Sanitary Sewer System.

1. Final Plans, profiles and details of sanitary sewer system.
2. Sanitary sewer system plan submitted to County Sewer District for review and approval for sewers tributary to County Sewer District.

1.11.3.2. Individual Subsurface Sewage Disposal System.

1. Final design and details of subsurface disposal systems.

1.11.4. DRAINAGE SYSTEM.

1. Final plans, profiles and details of storm drainage system including detention facilities.
2. Drainage easements provided for storm sewers and inlets not located in right-of-way, detention facilities, and swales or streams that carry uphill drainage across downhill lots.

1.11.5. SEDIMENT AND EROSION CONTROL.

1. Locations and details for erosion control measures.
2. Areas disturbed by grading indicated to be re-seeded as soon as possible.

1.11.6. STREETS AND ROADS.

1. Lines and grades of proposed streets.
2. Typical cross-sections of proposed streets.
3. Profiles of proposed streets.
4. Proposed location of monuments.
5. Easements including descriptions and dimensions.
6. Note on plan indicating that street and traffic signs shall be provided as required by the Design and Construction Standards.
7. Approval for open cut road crossings shall be obtained from Highway Superintendent.

1.11.7. FINAL ENGINEERING REPORT FOR MAJOR SUBDIVISIONS.

The final engineering report shall expand on the information included in the preliminary engineering report, and shall include final design computations. Any significant changes from the preliminary report shall be explained in detail.

1.11.8. FINAL DRAINAGE REPORT FOR MAJOR SUBDIVISIONS.

The final drainage report shall expand on the information included in the preliminary drainage report, and shall provide the following additional information:

1. Final design data and computations of storm drainage and detention facilities.
2. Specific erosion and sedimentation control measures during construction.
3. A Stormwater Pollution Prevention Plan is required for all projects disturbing more than one (1) acre in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity.
4. A copy of the Notice of Intent for coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity shall be provided.
5. A copy of the NYSDEC acknowledgement of receipt of Notice of Intent for coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity shall be provided, and shall also comply with Town Code Chapter 35 - Soil Erosion and Sedimentation Control Local Law.

1.12. SUBMISSION REQUIREMENTS FOR SITE PLANS.

Site Plan review is a one step process. The information required on the Site Plan is contained in the Design & Construction Standards. This checklist is provided for information only.

1.12.1. GENERAL.

1. Plan size not more than 34" x 44".
2. Scale 1" = 20', if feasible.
3. Name, address and signature of Owner.
4. Project name.
5. Name, address, seal and signature of Engineer or Surveyor who prepared plan.
6. North arrow, date and location map.
7. Zoning District.
8. Property boundaries including bearings and distances.
9. Names of Owners of adjacent lands.
10. Easements or deed restrictions affecting the proposed site.
11. Existing features including buildings, creeks, springs and woods.
12. Grading plan showing existing and proposed contours at intervals of not more than two (2) feet.
13. Proposed building location and setback dimensions.
14. Finished floor elevations for proposed building.
15. Easements provided for all dedicated facilities located outside road right-of-way.
16. Easement descriptions.
17. Bearings and distances for easements shown on plan.
18. Note on Plan that Construction shall conform to the Town of Gorham Standards.
19. Location of proposed project in relation to identified wetlands and to 100-year flood plain.
20. Monumentation of site boundary shown on the plan.
21. Proposed landscaping.
22. Present and anticipated future number of employees.
23. Site lighting.

1.12.2. WATER DISTRIBUTION SYSTEM.

1.12.2.1. Public Water Supply.

1. Location and size of water mains, including nearest hydrant.
2. Available and required fire flows.
3. Estimated water consumption.
4. Location, size and material of proposed water service.
5. Meter pits required for water services in excess of 250 feet as measured from the curb box to the building.
6. When polyethylene water services are proposed, copper tubing shall be used between the corporation stop and the curb stop when the water service extends under the road.

1.12.2.2. Private Water Supply.

1. Location of well, including yield and potability analysis.
2. Note indicating well to be sampled for adequate quantity and required quality and that a laboratory report be furnished to the Town before a building permit is issued.
3. Minimum required separation distances between well and subsurface sewage disposal systems and property lines.

1.12.3. SANITARY SEWER SYSTEM.

1.12.3.1. Individual Subsurface Disposal Systems.

1. Percolation and deep hole test results certified by Licensed Professional Engineer or Licensed Surveyor.
2. Locations for two (2) percolation tests and a deep hole shown on plan for each proposed absorption field.
3. Percolation tests and deep holes used for design shall be witnessed by the representative of the Town Engineer.
4. Soils which have any percolation test results faster than 5 minutes per inch shall not be used for subsurface disposal systems.
5. Sewage disposal system including design data and construction details, evaluation of soil and groundwater conditions as specified in Section 2.5.3.

2.3. SANITARY SEWER SYSTEMS. (continued)

1.12.3.1. Individual Subsurface Disposal Systems. (continued)

6. Design of sewage disposal system should include basis of design, critical inverts for septic tank, distribution box and ends of leachlines and size of septic tank.
7. Additional 50% of required absorption field area provided for expansion and replacement and shown on Plan.
8. Separation distance of four (4) feet provided between the bottom of the absorption field trench and seasonal high groundwater, bedrock or impervious layer.
9. Minimum horizontal separation distances for subsurface sewage disposal systems required by the NYS Department of Health.
10. Note included on plan that construction of the sewage disposal system shall be inspected and certified by the Design Engineer.
11. An area 10 feet beyond all sides of the absorption field indicated to be kept free of trees.
12. Cleanouts for building sewer laterals provided every 100 feet and at horizontal bends of 45 degrees or greater.
13. Approximate locations of existing sewage disposal system and water supply for adjacent parcels.
14. Certification by Licensed Engineer that existing sewage disposal system is functioning.

1.12.3.2. Public Sanitary Sewer System

1. If connection to existing public sewers are proposed, all requirements of the Design and Construction Standards regarding sanitary sewers shall apply.
2. Plan and profile shall include location, slope, size, depth and material of sanitary sewer system.

1.12.4. DRAINAGE SYSTEM.

1. Drainage Study Map.
2. Grading plan including existing and proposed contours.
3. Drainage easements provided for storm sewers and inlets not located in right-of-way, detention facilities, and swales or streams that carry uphill drainage across downhill lots.

1.12.5. EROSION AND SEDIMENT CONTROL.

1. Erosion control plan showing locations and details of erosion control measures.
2. Swales and turf-lined channels shall have slope not less than 1%.
3. A Stormwater Pollution Prevention Plan is required for all projects disturbing more than one (1) acre in accordance with the NYSDEC SPDES General Permit for Stormwater Drainage from Construction Activity.
4. A copy of the Notice of Intent for coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity shall be provided.
5. A copy of the NYSDEC acknowledge of receipt of the Notice of Intent for coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity shall be provided.
6. The requirements of Town Code, Chapter 35 - Soil Erosion and Sedimentation Control shall be met for all disturbances less than one (1) acre as required in the Town's Limited Development Overlay District (LDO), Chapter 31 §31.19.

1.12.6. ROADS AND PARKING AREAS.

1. Adjacent roads including rights-of-way, ditches, culverts and pavement.
2. Driveways including sight distances.
3. Maximum driveway grade not to exceed 10%.
4. Adequate foundation course provided for driveway to support emergency vehicles where driveways exceed 200 feet in length or have a non-linear alignment. Vehicle turnaround also provided.
5. Typical section of roadways and parking areas.
6. Parking layout.
7. Exterior lighting.

SECTION 2. DESIGN STANDARDS