Topic:	Erosion & Sedimentation Control; Stormwater Management
Resource Type:	Regulations
State:	New Mexico
Jurisdiction Type:	Municipal
Municipality:	City of Santa Fe
Year *(adopted, written, etc.)*:	2002
Community Type – applicable to:	Urban; Suburban
Title:	City of Santa Fe Terrain and Stormwater Management Ordinance
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Abstract

The Santa Fe Terrain and Stormwater Management Ordinance is designed to help capture stormwater and increase its infiltration in order to reduce substantial erosion hazards due to uncontrolled runoff, and to conserve and capture water resources. There are exemptions for development meeting such standards as less than 1000 SF of land disturbance and on slopes less than 10%. The ordinance provides for minimum grading standards, soil engineering reports if over 1,000 cubic yards of earth is moved, and the use of BMPs during construction. There are standards for minor development which call for a minimum volume of water to be contained or infiltrated on site based on impervious surface, and revegetation plans to prevent erosion. Standards for major development include measures to maintain the capacity of soil to infiltrate stormwater and include: maximum slope requirements for building; peak stormwater flow that does not exceed pre-development for certain storm events; and prohibition of stormwater discharge or disturbance of existing irrigation ditches, acequias, etc. Master Plans and some other development plans have minimum requirements that include designating land that is below the base flood elevation for a 100-year, 24-hour storm as open space, drainage easement, and public right of way. Final development plans and subdivision plats requirements include providing a long-term maintenance schedule for the life of stormwater management measures.

Resource

TERRAIN AND STORM WATER MANAGEMENT ORDINANCE, Chapter 14-8.2, Updated 2002.

14-8.2 TERRAIN AND STORMWATER MANAGEMENT.

(A) Purpose

The purpose of these regulations is to protect, maintain and enhance the health, safety, and general welfare of the citizens and natural environment of the City. The following

considerations shall be used during the design and planning process for all proposed developments subject to these regulations:

(1) Ensure sound and orderly development of the natural terrain;
(2) Protect life and property from the dangers of flooding and the hazard of improper cuts and fills;
(3) Minimize **erosion** and sedimentation;
(4) Minimize destruction of the natural landscape;
(5) Protect the scenic character of Santa Fe from the visual blight of indiscriminate cuts and fills and vegetation removal resulting from extensive grading, and utility scars;
(6) Treat stormwater runoff as a valuable natural resource in Santa Fe, a community that is prone to drought, by encouraging water collection and infiltration on site;
(7) Control the adverse impacts associated with accelerated stormwater runoff on natural drainage ways and all structures due to increased development and impervious surfaces;
(8) Minimize **erosion** and degradation of arroyo channels and improve the condition of the channel where possible;
(9) Respect, protect, maintain, and restore natural drainage ways, wetlands, bosques, floodplains, steep slopes, riparian vegetation, and wildlife habitat areas;
(10) Prevent stormwater runoff from damaging acequias or other irrigation facilities;
(11) Integrate stormwater management measures into the landscape and site planning process as set forth in §14-8.4; and
(12) Provide aesthetically pleasing solutions to stormwater management and **erosion** control measures by integrating measures into the overall landscape and site design.

(B) Applicability

(1) Minimum standards and submittal requirements for terrain and stormwater management are based on the type of project, as follows:
(a) Grading permit applications, when required by §14-3.10(E), shall meet the minimum standards and submittal requirements in §14-8.2(D);
(b) Building permit applications shall meet the minimum standards and submittal requirements in:
(i) §14-8.2(E);
(ii) §14-8.2(F);
(iii) If all terrain and stormwater management requirements have been met at the final development plan or subdivision plat stage, the approved final terrain and stormwater plans shall be submitted with the application for building permit and no further submittals shall be required;
(c) Master plan, preliminary development plan and preliminary subdivision plat applications shall meet the minimum standards and submittal requirements in §14-8.2(G);
(d) Final development plan and subdivision plat applications shall meet the requirements in §14-8.2(H); and
(e) All City departments which implement construction projects shall comply with the objectives, intent, and minimum standards of this section.

(2) Exemptions

New construction, remodeling, additions, or other alterations to existing structures are exempt from the requirements of this section provided that they meet the following conditions:

(a) Less than 1000 square feet of total land area is disturbed;

(b) No slopes greater than 10% are disturbed; and

(c) Existing drainage patterns on the property are not changed in a way that would increase the amount of stormwater runoff leaving the property.

(3) Variances.

Variances to these regulations shall be pursuant to §14-3.7(F).

(4) Alternative Compliance.

Applicants may propose alternatives to standard stormwater management techniques, so long as these alternatives allow the project to meet the minimum standards and general requirements of this section. Alternative techniques may be proposed that achieve improved environmental performance, including reduced stormwater runoff, increased infiltration, reduced sedimentation and **erosion**, and for aesthetic purposes. Proposals for alternative compliance to standard stormwater management techniques shall be subject to review and approval of the City Engineer in writing, stating the basis for such a waiver.

(C) Procedures and General Requirements

(1) All proposed development shall meet the purpose listed in §14-8.2(A).

(2) The City Engineer shall be authorized to determine the following:

(a) The completeness of all required terrain and stormwater management submittals;

(b) Compliance with all minimum standards;

(c) The acceptability of all proposed **erosion** control and stormwater management methods; and

(d) The need for additional information or written approval in order to determine compliance with the purposes, intent, and minimum standards of this section.

(3) The preparation of submittals shall be as follows:

(a) Building Permits for Minor Development.

Submittals may be prepared by any individual, including the homeowner, however, the City Engineer may require that submittals be prepared and signed by a New Mexico professional engineer, architect, or landscape architect if it is deemed necessary in order to fulfill the requirements of this section;

(b) Grading Permits

Submittals shall be prepared and certified by a New Mexico professional engineer or a landscape architect or architect registered in New Mexico; and

(c) Building Permits for All Other Development

(i) Topographic Plans.

Submittals shall be prepared and certified by a New Mexico professional engineer or a land surveyor licensed in New Mexico.

(ii) Stormwater Management

Submittals for master plans, subdivisions and development plans shall be prepared and certified by a New Mexico professional engineer. Submittals for all other building permits shall be prepared by a New Mexico professional engineer or an architect or landscape architect registered in New Mexico;

(iii) Site Restoration.

Submittals shall be prepared and certified by a landscape architect or architect registered in New Mexico or a New Mexico professional engineer.

(4) No certificate of occupancy or any type of final construction approval shall be issued by the City unless a parcel is in full compliance with the requirements of this section and all inspections have been conducted as described in §14-8.2(I).

(5) Activities permitted by this section may also require notification or permitting by other agencies, including but not limited to written approval from the Acequia Madre de Santa Fe Community Acequia Association or other official watercourse related organization, the Federal Environmental Protection Agency, the United States Army Corps of Engineers, the Federal Emergency Management Agency (FEMA) and the New Mexico Environment Department. It is the responsibility of each applicant to determine whether additional notification or permitting is required.

(D) Grading Permits

(1) Minimum Standards

When a grading permit is required by §14-8.2 Grading Permits Required, applications for the permit shall show compliance with the following minimum standards:

(a) Cut and Fill Slopes

(i) Cut slopes on a site shall not exceed ten feet in height. In no case shall the height of a cut exceed the height of the building;

(ii) Fill slopes on a site shall not exceed 15 feet in height. Retaining walls for fill slopes shall be no greater than ten feet in height. However, in the escarpment overlay district retaining walls shall be no greater than five feet in height, and in the case of cement, shall be a matching earth tone color. Unstabilized fill slopes shall be no steeper than 3:1, unless a structural alternative such as a retaining wall or some other measure acceptable to the City Engineer is provided;

(iii) Cut or fill slopes for roads shall not exceed 15 feet in height; and

(iv) All cut slopes that are not stabilized by a retaining wall or some other measure acceptable to the City Engineer, shall be no steeper than 2:1 (2 horizontal to 1 vertical), unless a structural alternative is provided or unless it can be demonstrated by the geotechnical study that existing soils will naturally accommodate a steeper slope and acceptable revegetation, or other **erosion** control can be achieved;

(b) Grading

(i) Grading on building sites is limited to 15 feet beyond the outer edge of the building foundation, patio, wall, driveway, road, parking area, or other constructed facility except:

A. As necessary for the construction of stormwater runoff management measures in compliance with this section; or

B. As necessary to accommodate required horizontal to vertical measurements for cut and fill slopes.

(ii) Private driveways shall not exceed a grade of 15 percent nor shall the inside-turning radius of any private driveway be less than 15 feet.
(iii) Natural slopes greater than 30 percent shall remain undisturbed, except for isolated occurrences such as arroyo crossings and other sloped areas where the disturbance shall not exceed 1,000 square feet in total, as approved by a City Engineer. The City Engineer may waive this provision, in writing, stating the reasons and basis for such approval, if evidence is provided by the applicant showing that strict enforcement of this provision would prohibit access to the lot or placement of utilities. This provision shall apply solely to the construction of roads, driveways, and utility placement and is not intended to permit development on natural slopes exceeding 30 percent. The other provisions of the escarpment overlay district ordinance and the terrain and stormwater management regulations shall remain in effect;
(iv) Where the volume of earth to be moved on a site exceeds 1,000 cubic yards, a soil engineering report prepared by a New Mexico professional engineer shall be submitted and approved. A soil engineering report shall include the soil type, classification, permeability, **erosion** potential, and any other pertinent soil information requested by the City Engineer;
(v) Phasing for grading and clearing may be required by the City Engineer on all sites where construction will not begin immediately after clearing and grading;
(vi) No grading permit for driveway construction shall be issued unless the City Engineer has first determined that a buildable area as defined in §14-8.2(F)(2)(b) exists on the lot. In the escarpment overlay district, a grading permit for driveway construction shall be issued only for access to the buildable area farthest from the view line; and
(vii) All grading completed on the site shall be in conformance to the approved grading plan.
(c) Site Restoration
All development subject to a grading permit shall be required to meet the requirements of §14-8.2(F)(2)(d) as appropriate for the project;
(d) Best Management Practices
The following best management practices shall be used before and during the construction process:
(i) Disturbed areas shall be protected from **erosion** during construction by diverting stormwater around the disturbed area, energy dissipation of stormwater adequate to prevent **erosion**, retention of sediment on the disturbed area, and/or other means adequate to retain soil on site;
(ii) Except as necessary to install temporary **erosion** and sediment control devices, land shall not be graded or cleared of vegetation until all such temporary devices have been properly installed and inspected. Temporary **erosion** and sediment control devices may include silt fencing, swales, straw bales, berms, geotextiles sediment basins or traps, fencing. Control devices shall be kept in place and used until the disturbed area is permanently stabilized;
(iii) Significant trees, areas with substantial grass coverage, and drainage ways that are to remain undisturbed shall be fenced off prior to the use of any heavy machinery on-site and shall remain fenced during the entire construction process. Fencing material may include snow fencing, plastic mesh or other similar fencing material. To protect the root

zone of significant trees, fencing shall be placed 5 feet to the outside of the dripline of significant trees;
(iv) To prevent soil from leaving a site, soil stockpiles shall be protected from wind and water **erosion** throughout the construction process by using appropriate **erosion** control techniques. Staging and soil stockpile areas shall be clearly designated on the site. All topsoil shall be kept on site, within the disturbance zone of a construction site, and then reintroduced into planting areas to the extent possible. Stockpiled soil shall not be allowed to enter arroyos or other drainage ways;
(v) Techniques to prevent the blowing of dust or sediment from the site, such as watering down exposed areas, are required for projects which disturb greater than 5,000 square feet; and
(vi) Protection for storm drain inlets shall be provided, if needed, to prevent the entry of sediment from the site while still allowing the entry of stormwater.
(2) Submittals
Applications for grading permits shall include:

(a) A topographic survey and grading plan with elevation contours shown at not more than two foot intervals on slopes up to 30 percent and five foot intervals on slopes greater than 30% which shows:
(i) All areas with slopes 0 - 20 percent; 21 - 30 percent; and 31 percent and greater, differentiated through shading, tone, color, or line weight;
(ii) All areas to be graded on the site and the final contours to be achieved by the grading;
(iii) All finished floor or grade elevations;
(iv) Spot elevations, as needed;
(v) Areas of soils with severe limitations for the intended use;
(vi) The location of temporary **erosion** control structures and methods used, including staging and stockpile areas;
(vii) All significant trees and areas with substantial grass coverage to be removed;
(viii) A construction schedule when the project will be developed in phases;
(ix) The location of fencing around the areas to be protected;
(x) The ratio of horizontal to vertical measurement for cut and fill slopes;
(xi) The total volume, in cubic yards, of earth to be moved; all existing disturbed areas; and
(xii) FEMA flood hazard areas.

(b) For all roads or other excavations where the volume of earth to be moved exceeds 1,000 cubic yards, cross-sections or contour maps showing the height of cuts and fills at a maximum of 100 foot intervals and at any major breaks in the terrain may be required by the City Engineer.

(E) Building Permits for Minor Development

(1) Minor Development

A minor development includes the construction of any structure including but not limited to single family residences, additions, sheds, garages, driveways, or pavement that meets all of the following criteria:

(a) All development takes place on a single lot or a subdivision of less than three lots;
(b) Development disturbs less than 5,000-square feet of land per lot;
(c) Development disturbs no slope greater than 10 percent; and
(d) No more than 3,500-square feet of new impervious surface is created per lot.

(2) Minimum Standards

Minor development shall comply with the following minimum standards:

(a) The minimum volume of water to be contained or infiltrated on site shall be determined by multiplying the total area of new impervious surface, in square feet, by 0.16 feet to arrive at a value expressed in cubic feet. [i.e. 160 cubic feet of water containment is required per 1000 square feet of impervious surface.] Compliance may be achieved by:

(i) The use of active or passive water harvesting techniques such as cisterns, swales, berms, and check dams;
(ii) The construction of a detention or retention basin; or
(iii) A combination of (i) and (ii).

(b) All water containment structures, which have water open to the air, shall empty within 24 hours either through percolation into the soil or through outlet structures designed to ensure a controlled release of water that will not cause flooding or **erosion**;

(c) To protect against **erosion**, all land disturbed during construction shall be revegetated with drought tolerant vegetation. Trees and shrubs shall be irrigated until established. The use of naturally degrading **erosion** control blankets or other **erosion** control materials is encouraged to ensure that grasses become established. Stones or treated landscape timber may be used to stabilize disturbed areas in lieu of revegetation.

(3) Submittals
Building permit applications for minor development shall include:

(a) A brief narrative description of the proposed project;
(b) A topographic map of the property to scale, including United States geological survey quadrangle maps or maps generated by the City of Santa Fe, adequate to show elevation contours, natural drainage ways, existing and proposed improvements;
(c) A brief verbal description and/or representative photographs of the type (such as, pinon and juniper trees, annual weeds, grass cover, bare ground, and so on) and approximate coverage of existing vegetation at the site, and a plan for vegetation removal at the site;
(d) A description of all proposed grading or ground disturbance;
(e) Calculations and a plan drawing showing:

(i) The size and location of all proposed runoff containment structures or methods and how water will be directed to the structures or methods; and
(ii) Percolation test results or other means of demonstrating that containment structures will empty within 24 hours.

(f) A roof run-off drainage plan; and

(g) A planting plan for revegetation showing proposed plant materials and a description of the proposed irrigation method or other methods used to establish vegetation and prevent **erosion** until vegetation becomes established.

(F) Building Permits For All Other Development

(1) All Other Development
All other development that requires a building permit and does not meet the requirements of §14-8.2(E) shall meet the following minimum standards and submittal requirements:

(2) Minimum Standards

(a) All projects shall meet the minimum standards for grading in §14-8.2(D).
(b) Topography

(i) Each lot shall have an area designated as suitable for building of not less than 2,000 square feet, which can be developed in accordance with the terrain and stormwater management standards and minimum performance standards;
(ii) One-half of the area designated as suitable for building and designated for the building footprint shall have a natural slope of 20 percent or less. The other one-half of the area may have a natural slope between 20 percent and 30 percent;
(iii) For a structure built on a natural slope over 20 percent, the finished floor elevation at any point shall not exceed five vertical feet above the natural grade at that point; and
(iv) No structure may be built on a natural slope of over 30 percent unless as specified in §14-9.4 (A).

(c) Stormwater Management

(i) General Standards

A. Stormwater management measures shall be selected to best accommodate the specific geologic, hydrologic, and topographic features of the land to be developed;

B. Stormwater management measures shall be designed as both a comprehensive and integral part of the development;

C. Stormwater management measures shall be designed to directly address additional flows from the proposed development. Compliance with these standards shall not be achieved solely by alterations to flows upstream of a proposed development; and

D. Stormwater management plans may be designed to incorporate measures that are shared by two or more developments provided that the measures comply with the minimum standard of this section.

(ii) Discharge Standards

A. Except as required for certain development in §14-8.2(G)(1)(c), the stormwater runoff peak flow rate discharged from a site shall not exceed pre-development conditions for any frequency storm event up to the 100-year, 24-hour storm event at each discharge point. Calculation of the runoff peak flow rate may approximate the event from available data;

B. Runoff control measures may include, but are not limited to, the use of detention or retention basins and active and passive water harvesting techniques including swales, berms, cisterns, check dams, vegetative ground cover, and other techniques appropriate for retaining and infiltrating water on-site;

C. No stormwater shall be discharged into any watercourse or drainage channel without adequate reduction of flow velocity. This shall be accomplished by **erosion** control techniques that may include the routing or energy dissipation of stormwater runoff to a vegetated swale, vegetated basin, or stone-protected area. The techniques used shall be sufficient to diminish runoff velocity and spread runoff flow adequately to avoid **erosion** upon entering the watercourse;

D. No stormwater runoff shall be routed into irrigation ditches, canals, acequias or watercourses related to an acequia system unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the facility and the City Engineer. It shall be the responsibility of the developer to obtain all such approvals before submittal of any application;

E. No existing acequia, watercourse or other natural drainage system not related to an existing or historic acequia system, whether on-site or off-site, shall be disturbed by any on-site building development or construction activity unless the City Engineer approves the change to the watercourse or other natural drainage system; and

F. No active, historic acequia, whether on-site or off-site, shall be disturbed in any way by on-site building development or construction activity unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the acequias. It shall be the responsibility of the developer to obtain all such approvals before submittal of any application.

(iii) Basin Standards

A. Stormwater detention basins and overflow structures shall be sized and designed to adequately accommodate flows from 100-year, 24-hour storm events. However, such basins shall also be equipped with outflow structures that limit flow-through from lesser

magnitude storms to runoff rates equal to or less than pre-development runoff rates. Calculations may be approximated from available data;

B. Infiltration, detention, and retention basins shall provide a means of controlling and removing sediment. Methods may include sedimentation settling ponds, sediment traps, filters on drop inlets, or other methods. All basins shall be designed to empty within no more than 24 hours;

C. French drains, infiltration basins or other similar structures used for the percolation of water into the soil, shall not be constructed so that their depth is greater than its widest horizontal dimension unless a notice of intent for the construction is filed with the New Mexico Environment Department; and

D. Landscape treatment of infiltration, retention, and detention basins is required and shall be in accordance with the §§14-8.4(F) and 14-8.4(E).

(iv) Arroyo, Stream and Watercourse Standards

A. For arroyos, streams, or watercourses that carry 100 cubic feet per second or more of stormwater flow in a 100-year, 24-hour storm event, all structures, paved roads, driveways, and parking lots shall be set back a minimum of 25 feet from the top shoulder of an arroyo plus the depth of the arroyo channel. This setback provision does not apply to stormwater management structures or public access trails;
B. Except for **erosion** control measures, stormwater management measures, public access trails, or the placement of underground utilities required for development, no grading shall occur within the setback area;
C. Where practical, **erosion** control and channel stability in arroyos, streams, or watercourses shall be achieved using techniques that reduce stormwater velocity, preserve active floodplains, provide adequate room for floodwaters to spread safely, and utilize native vegetation. Arroyo and watercourse banks shall not be armored with concrete, gabion baskets, sheet piling, rip-rap, or similar hardened material unless no reasonable alternative exists to protect public infrastructure or pre-existing structures; and
D. Fences, walls, and similar structures may not be constructed in or across any arroyo, stream, or watercourse.

(d) Site Restoration

(i) Soil stabilization and **erosion** control measures for all land disturbed by construction shall be completed within 21 calendar days after completion of construction or other activities on site that would interfere with such soil stabilization measures. If the time of year is not conducive to planting, then planting may be delayed until the next appropriate planting season provided that all appropriate temporary **erosion** control measures are maintained until permanent **erosion** control measures are implemented;
(ii) One or more of the following stabilization and **erosion** control measures shall be used:

A. Revegetation with appropriate drought-tolerant plant materials, including grasses or other ground cover;
B. Restoration with bioengineering techniques such as live staking, brush layering, brush mattress, live crib walls; or
C. Stabilization with stones, terracing, or similar techniques.

(iii) All trees and shrubs shall be mulched and irrigated until established. It is recommended that grass seed either be 1) hydroseeded; or 2) covered with biodegradable material or synthetic soil **erosion** control blankets or matting and irrigated until established. Irrigation shall be pursuant to the irrigation requirements in §14-8.4(E).

(e) Increase in Minimum Standards

(i) The City Engineer may require implementation of more than the minimum stormwater standards if arroyos on site or immediately downstream of a site show evidence of increased flooding, channel **erosion** or sedimentation, as a direct result of conditions on the site. Increased requirements shall be limited to the following on-site measures:

A. **Erosion** control measures extended to a broader area of the site than the development area;
B. Revegetation of highly eroded areas;
C. Arroyo restoration or other **erosion** control measures within highly eroded channels; or
D. A combination of the above measures.

(3) Submittals

Submittals for building permit applications for all other development shall include:

(a) The submittals for grading listed in §14-8.2(D).

(b) Topography plan which includes:

(i) All sloped areas of 0 - 20 percent, 21 - 30 percent, and greater than 30 percent shall be clearly marked and differentiated by shade, tone, or color at the same scale required for preliminary subdivision plat;
(ii) Ground elevations which conform to either the United States geological survey sea level datum, as modified, or to the City of Santa Fe's monument system, showing elevation contours at not more than two foot intervals on slopes up to 30 percent and not more than five foot intervals on slopes greater than 30 percent;
(iii) The designated building lot area(s); and
(iv) Date, method of survey, and certification from a New Mexico professional engineer or professional land surveyor that the plan is in compliance with national map accuracy standards.

(c) Stormwater management plan which includes:

(i) A vicinity map;
(ii) Existing and proposed contours, all watercourses, arroyos, drainage ways, impoundments, and wetlands on or adjacent to the site or into which stormwater from the site flows;
(iii) Location of all existing and proposed improvements including buildings, structures, impervious surface, stormwater management measures, roads, and utilities;
(iv) Location of all easements and rights-of-way;
(v) The delineation, if applicable, of the 100-year floodplain, including the flood fringe and floodway, if available, and any on-site or adjacent wetlands;
(vi) Description of all soils, including general soil characteristics and areas of solid rock;
(vii) Percolation test results for all areas with retention ponds or other facilities designed for infiltration and a description of techniques to be used to prevent the clogging of soil pores by fine sediment;
(viii) A description of the approximate area of the watershed above the site, including the vegetative coverage and impervious surfaces;
(ix) The total peak flow rate of stormwater that would be discharged from the site for pre-development and post development runoff conditions in the two, ten, 50, and 100-year, 24-hour storm event and type of calculation method used;
(x) Sizing, volume, and peak flow rate calculations in cubic feet per second for stormwater management facilities;
(xi) Structural and construction details for all components of the proposed drainage system;
(xii) Data for total site area, disturbed area, new impervious area, and total impervious area; and
(xiii) A plant schedule of materials to be used as landscape treatment for stormwater management measures;

(d) Site restoration plan which includes the location of all permanent **erosion** control methods, including location, type and amount of plant and seed material to be used, proposed irrigation, any soil stabilization needed prior to plant establishment, time schedule for installation, and maintenance schedule for one year beyond the planting date.

(G) Master Plans, Preliminary Development Plans and Preliminary Subdivision Plats

(1) Minimum standards

(a) Projects shall meet the minimum standards of §§14-8.2(D) and 14-8.2(F);
(b) All land below the base flood elevation for a 100-year, 24-hour storm event shall be dedicated as public open space, drainage easement and public right of way depending on the nature of the development and the hydrology of the area to prevent infringement to the hydrologic floodplain. Under no circumstances shall pedestrian or other public easements or open space dedications be precluded for purely non-hydrologic reasons; and

(c) For all development where one-half or more of the land within the subdivision exceeds 20 percent slope, the quantity and peak flow rate of post-development stormwater runoff on all developed or disturbed land shall not exceed 75 percent of the quantity and peak flow rate of the pre-development runoff.

(2) Submittals. Submittals for master plans, preliminary development plans and subdivision plats shall include:

(a) A conceptual plan and report that shows the general approach proposed for terrain and stormwater management, and how the proposed development will meet all of the minimum standards described in §§14-8.2(D) and 14-8.2(F);
(b) A topography plan as outlined in §14-8.2(F)(3); and
(c) A brief description of the watershed directly upstream and downstream of the parcel, including the size, terrain, type and extent of vegetation cover, and degree of development for all areas draining to the project site; and
(d) A water availability and conservation plan shall be submitted for all new subdivisions of 15 or more dwelling units which are sited, in whole or in part, on natural sloped areas greater than 20 percent.

(H) Final Development Plans and Subdivision Plats

(1) Minimum standards. Final development plans and subdivision plats shall meet the minimum standards described in §§14-8.2(D), 14-8.2(F), and 14-8.2(G).

(2) Submittals. Submittals for final development plans and subdivision plats shall include:

(a) All submittals required in §§14-8.2(D) and 14-8.2(F);
(b) A long-term maintenance schedule for the life of the stormwater management measures including the time frame for completion and the responsible party who shall perform the maintenance; and
(c) An as-built certification signature block to be executed by a New Mexico professional engineer after the project completion to ensure that the constructed stormwater management systems comply with the approved storrnwater plans.

(I) Inspections and Violations During Construction Process

(1) Inspections

(a) For all non-residential projects and all residential projects that do not qualify as minor development, an applicant shall notify the City to set up a City inspection at the following times:

(i) When the temporary best management practices are completed;
(ii) When final stormwater management measures are completed; and

(iii) When the final site restoration measures are completed, however, if final site restoration measures are being delayed due to the season, the applicant shall notify the City when temporary **erosion** control measures, for use until site restoration is complete, in place and ready for inspection; and
(iv) Further construction or issuance of any permits shall not occur until written approval has been granted by the inspector after each inspection that the best management practices and stormwater management control methods have been completed in accordance with approved plans;

(b) The City Engineer or code enforcement officer may enter upon any property subject to this section at reasonable times to conduct inspections of grading, **erosion** and stormwater management measures to determine compliance with City policies and procedures and to carry out duties in the enforcement of this section; and

(c) The applicant shall perform regular inspections of all grading, **erosion** control, and stormwater management measures. All inspections shall be documented in written form and shall be made available to the City Engineer or code enforcement officer upon request.

(2) Violations

Any violation of this section shall be subject to the provisions of §§14-11.5(A) and 14-11.5(B).

(J) Dedications, Easements and Right-of-Ways

(1) All land below the base flood elevation for a 100-year, 24-hour storm event shall be dedicated to the City as public open space, drainage easement and public right-of-way depending on the nature of the development and the hydrology of the area. Under no circumstances shall pedestrian or other public easements or open space be precluded for purely non-hydrologic reasons.

(2) Irrevocable dedications to the City may be required by the City Engineer for the components of the stormwater drainage system including access for maintenance. The types of all easements and open space dedications shall be determined by the City Engineer. If a dedication is required, it shall be designated on the plan or plat and in effect prior to building permit approval.

(3) An applicant may make requests for dedications of a stormwater drainage system to the City, however, the City is not obligated to accept a dedication offer. Only the Planning Commission or the Governing Body, whichever is the appropriate body hearing the matter, may accept dedications to the City. If a dedication is offered to and accepted by the City, it shall be designated on the plan or plat and in effect prior to building permit approval.

(K) Long Term Maintenance Responsibilities and Inspections

(1) Responsibilities

All stormwater management measures and facilities shall be maintained by the fee simple owner of the property or a homeowners association, unless a dedication of the stormwater management system has been required or accepted by the City, in which case, the City shall be responsible for maintenance. For developments of 15 or more dwelling units, developers shall provide liability and property damage insurance, in a form approved in writing by the City Attorney, in order to protect adjacent property owners from failure of drainage or **erosion** control structures which were required for the development. For new developments of fifteen or more dwelling units, performance bonds or their equivalent shall be posted by the developer for 10 years and thereafter, shall be renewed by the neighborhood or responsible association for maintaining all common drainage structures. Failure to renew the bond in a timely manner on an annual basis shall be grounds for the City Attorney's office to call the bond. The bond must be in an amount sufficient to defray maintenance costs for 10 years. The stormwater management system shall be maintained in good condition and promptly repaired. Maintenance shall include the repair and restoration of all grade surfaces, walls, swales, drains, dams, ponds, basins, site restoration measures, associated vegetation, and any other stormwater measure constructed on site. Such maintenance shall be in accordance with approved stormwater management plans.

(2) City Inspections

The City or its authorized agent may enter upon a property, which is subject to this section, at reasonable times to access the stormwater management system to ensure that the system is maintained in proper working condition to meet the approved stormwater management plans and the objectives and minimum standards of this section.

(3) Maintenance Violations

If after notice by the City to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) or responsible party within a reasonable period of time, the City may perform all necessary work to place the facility in proper working condition. The owner(s) or responsible party of the facility shall be assessed the associated costs of the work.

(Ord. No. 2001-38 § 2; Ord. No. 2002-20 § 1)