BEFORE THE CITY COUNCIL OF THE CITY OF TURLOCK

IN THE MATTER OF AMENDING TITLE 7, CHAPTER 4 OF THE TURLOCK MUNICIPAL CODE TO ADD EROSION AND SEDIMENT CONTROL STANDARDS	**}**	**ORDINANCE NO. 981-CS**

BE IT ORDAINED by the City Council of the City of Turlock as follows:

Title 7, Public Works, Chapter 4, Excavations, Article 100, et seq., of the Turlock Municipal Code is hereby added and adopted to read as follows:

7-4-100 ART. GRADING, EROSION AND SEDIMENT CONTROL

7-4-101. Purpose.

Pursuant to its authority granted by California Constitution Article 11, Section 7, it is the declared intent of the City of Turlock to promote the conservation of natural resources and to protect public health and safety, through the reduction or elimination of undue settlement, erosion, siltation and flooding by minimizing the adverse effects of grading, cut and fill operations, water runoff and soil erosion.

During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes and storm basins. In addition, clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat.

As a result, the purpose of this local regulation is to safeguard persons, protect property, and prevent damage to the environment in the City of Turlock. This ordinance will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land in the City of Turlock.

Therefore, the provisions of this chapter are adopted for the purpose of controlling all aspects of grading operations within the City of Turlock.

7-4-102. Definitions.

For the purposes of this chapter, the following terms shall have the definitions specified:

(a) **"Applicant"** shall mean any persons, corporation, partnership, association of any type, public agency or any other legal entity that submits an application to the City Engineer for a permit pursuant to this chapter.

(b) **"Architect"** shall mean a professional Architect licensed by the state of California.

(c) **"As-graded"** shall mean the surface conditions existent at completion of

grading.

(d) **"Bedrock"** shall mean in-place solid rock.

(e) **"Bench"** shall mean a relatively level stop excavated into earth material on which fill is to be placed, or within a cut or fill slope.

(f) **"Berm"** shall mean a built up mound of soil approximately one foot above grade or higher, all along the perimeter of a property, or the heel (top) of a slope to prevent water runoff from running onto adjacent property or eroding a slope.

(g) **"Best management practices"** shall mean a technique or series of techniques which, when used in an erosion control plan, is proven to be effective in controlling construction related runoff, erosion and sedimentation.

(h) **"Blending"** shall mean the intermixing and compaction of natural site soils, such as of materials from two natural soil horizons, or for the intermixing and compaction of natural site soils with imported soil or other materials.

(i) **"Borrow"** shall mean earth material acquired from an offsite location for use in grading on a site.

(j) **"Buttress fill"** shall mean a compacted fill which is placed in an area where soft natural soils beneath a planned fill would be over-stressed by the weight of the fill. The buttress fill is placed after the soft natural soils have been removed.

(k) **"Certification"** shall mean a written opinion concerning the progress and completion of the work, prepared by a registered Civil Engineer or Geologist.

(l) **"City"** shall mean the City of Turlock or designated official.

(m) **"City Engineer"** shall mean the City Engineer for the City of Turlock or his or her authorized representative.

(n) **"Civil engineering"** shall mean the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works for the beneficial uses of mankind.

(o) **"Contour rounding"** shall mean the rounding of cut and fill slopes in the horizontal plane to blend with existing contours or to provide horizontal variation, to eliminate the artificial appearance of slopes.

(p) **"Compaction"** shall mean the densification of a fill by mechanical means.

(q) **"Competent material"** shall mean earth material capable of withstanding the loads which are to be imposed upon it without failure to detrimental settlement, as certified by the soils engineer.

(r) **"Depth of cut or fill"** shall mean the vertical distance between existing natural ground and the finish elevation at any location.

(s) **"Drainageway"** shall mean natural or manmade channel which collects and intermittently or continuously conveys storm water runoff.

(t) **"Earth material"** shall mean any rock, natural soil or fill and/or any combination thereof.

(u) **"Engineering Geologist"** shall mean a professional Engineering Geologist registered in and by the state of California to practice in the field of engineering and geology.

(v) **"Engineering geology"** shall mean the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

(w) **"Erosion"** shall mean the wearing away of the ground surface as a result of the movement of wind, water and/or ice.

(x) **"Excavation"** shall mean the mechanical removal of earth material.

(y) **"Existing grade"** shall mean the grade prior to grading.

(z) **"Fill"** shall mean a deposit of earth material placed by artificial means.

(aa) **"Finish grade"** shall mean the final grade of the site which conforms to the approved plan.

(ab) **"Grade"** shall mean the vertical location of the ground surface.

(ac) **"Grading"** shall mean any land disturbance, excavation or fill or any combination thereof.

(ad) **"Height of cut and fill slopes"** shall mean the finished vertical distance from the top to toe of slope, measured prior to the application of any required slope rounding.

(ae) **"Interim erosion and sediment control plan (interim plan)"** shall mean a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site during the period in which preconstruction and construction-related land disturbances, fills and soil storage occur, and before final improvements are completed.

(af) **"Key"** shall mean a designated compacted fill placed in a trench excavated in earth material beneath the top of a proposed fill slope.

(ag) **"Land disturbance/land disturbing activities"** shall mean any moving or removing by manual or mechanical means of the soil mantle or top six inches of soil, whichever is more shallow, including, but not limited to, excavations.

(ah) **"Land fill"** shall mean any activity depositing soil or other earth materials.

(ai) **"Manual of standards"** shall mean a compilation of technical standards and design specifications adopted by the City Engineer as being proven methods of controlling construction related surface runoff, erosion and sedimentation.

(aj) **"Modification"** shall mean any procedure that will reduce the Atterberg limits (liquid limit, plastic limit and Plasticity Index) of a soil.

(ak) **"Nesting"** shall mean the placement of large rocks such that voids in the fill are created and that required compaction becomes difficult or impossible.

(al) **"Permittee"** shall mean the applicant in whose name a valid permit is duly issued pursuant to this chapter and his agents, employees and others acting under his direction.

(am) **"Replacement"** shall mean the removal and wasting of natural soil materials judged unsuitable for the support of dwellings or other site improvements and their replacement with suitable soil materials properly compacted.

(an) **"Reworking"** shall mean the mechanical densification or consolidation of natural loose soil material.

(ao) **"Rough grade"** shall mean the stage at which the grade approximately conforms to the approved plan.

(ap) **"Sediment"** shall mean earth material deposited by water or wind.

(aq) **"Site"** shall mean any lot or parcel of land or contiguous combination thereof, where grading is performed or permitted.

(ar) **"Slope"** shall mean an inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

(as) **"Slope control specialist"** shall mean a professional Landscape Architect or other professional person experienced in erosion control work, retained by the developer in a professional or consultative capacity (not as a contractor performing construction work in the development) and responsible for analysis, plans, specifications, supervision and

certifications regarding slope control planting and related slope control work, other than grading, for a specific project.

(at) **"Soil"** shall mean the top layer of the earth's surface, excluding rock.

(au) **"Soils engineer"** shall mean a civil engineer licensed in the state of California, experienced and knowledgeable in the practice of soil engineering.

(av) **"Soil engineering"** shall mean the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.

(aw) **"Stabilization"** shall mean any procedure that will result in increased strength of a soil to a required level.

(ax) **"Terrace"** shall mean a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

(ay) **"Variable slope"** means the variation in steepness of a cut or fill slope in either, or a combination of the horizontal or vertical plane of the slope.

(az) **"Vertical slope rounding"** shall mean the rounding the tops or toes of cut and fill slopes.

(ba) **"Wet season"** shall mean the period from October 15th to April 15th.

7-4-103. Permit required.

(a) No person may grade, fill, excavate, store or dispose of soil and earth materials or perform any other land-disturbing or land-filling activity without first obtaining a permit as set forth in this chapter. The fee for the permit shall be established from time to time by resolution of the City Council.

(b) No permit shall be granted until the applicant has obtained all necessary approvals such as, but not limited to, use permit, tentative map, or building permit. The environmental impact shall be considered in the granting of a permit, and conditions may be imposed by the City to minimize or mitigate the negative environmental impacts of the proposed work. The City Engineer shall determine when appropriate approvals and conditions have been met.

(c) A permit pursuant to this chapter is not required if all of the following criteria are met:

(1) The site upon which land area is disturbed or filled is ten thousand square feet or less;

(2) Volume of soil or earth materials disturbed or stored is fifty cubic yards or less;

(3) Rainwater runoff is diverted, either during or after construction, by the activities from an area smaller than five thousand square feet;

(4) An impervious surface, if any, of less than five thousand square feet is created;

(5) No drainageway is blocked or has its storm water carrying capacities or characteristics modified; and

(6) The proposed grading does not raise or lower the lot elevation one-half foot or more in relation to the surrounding land.

(d) The following activities are categorically exempt from the permit requirements:

(1) An excavation below finished grade for basements and footings if a building, retaining wall or other structure authorized by a valid building permit. This shall not

exempt any fill made with material from such excavation nor exempt any excavation having an unsupported height greater than five feet after the completion of the structure;

(2) Cemetery graves;

(3) Refuse disposal sites meeting regional water quality control board water discharge requirements and in compliance with other regulations;

(4) Excavations for wells;

(5) Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay where a valid use permit from the City is in effect and regional water quality control board waste discharge requirements are met and there is compliance with other regulations, also provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property;

(6) Exploratory excavations under the direction of soil engineers or engineering geologists;

(7) Agricultural use of land.

(8) Any activity where total volume of material disturbed, stored, disposed of or used as fill does not exceed twenty-five cubic yards is always categorically exempt from the permit requirements;

(9) Work conducted in any City street, public right-of-way or easement when the work is for a public facility, public utility or other public purpose and for which an encroachment permit has been issued;

(10) City public works projects; and

(11) Emergency work authorized by the City necessary to protect life, limb or property, or to maintain the safety, use or stability of a public way or drainage.

(e) All land-disturbing or land-filling activities or soil storage, whether done pursuant to a permit or otherwise, shall be undertaken in a manner to minimize dust, surface runoff, erosion and sedimentation.

7-4-104. Permit application.

To obtain a permit the applicant shall file a written application on a form approved by the City Engineer containing no less than the following information:

(a) Name, address and telephone number of the applicant;

(b) Names, addresses and telephone numbers of any and all contractors, subcontractors or persons actually doing the land-disturbing and land-filling activities and their respective tasks;

(c) Name, addresses and telephone numbers of the person(s) responsible for the preparation of the site map and grading plan;

(d) Name, address and telephone number of the registered Civil Engineer responsible for the preparation of the soils and geological report, where required;

(e) An estimate of the time schedule of work;

(f) The City business license number of the contractor performing the work;

(g) Date of application;

(h) Signature(s) of the owner(s) of the site or of an authorized representative; and

(i) Description of site location.

7-4-105. Data and documents to accompany application.

The application shall be accompanied by not less than the following material:

(a) **General Plans and Data.**

(1) Application form;
(2) Site map and grading plan;
(3) Interim erosion and sediment control plan, where required;
(4) Final erosion and sediment control plan, where required;
(5) Soils engineering report, where required;
(6) Work schedule;
(7) An engineer's estimate of the quantity and cost of the work to be done;
(8) Ten (10%) percent cash bond or certificate of deposit, unless otherwise bonded for;

(9) Dust Control cash deposit as established from time to time by resolution of the City Council;
(10) Any supplementary material required by the City Engineer; and
(11) Application fees (inspection and plan checking fees) shall be paid, unless previously paid. All fees shall be established by resolution of the City Council.

(b) **Specific Plans and Data.**

(1) **Grading Plan and Site Map.** Plans shall be twenty-four inches (24") by thirty-six inches (36") and to a form approved by the City Engineer. The plans shall contain the following items, plus any additional material which the City Engineer deems necessary to show conformance of the proposed grading with the requirements of this section and other related ordinances. They shall contain:

(i) A vicinity map showing the location of the site in relationship to the surrounding area's watercourses, and other significant geographic features, and roads and other significant structures;
(ii) Boundary lines of the site;
(iii) Each lot or parcel of land into which the site is proposed to be divided;
(iv) The location of any existing buildings or structures on the property where the work is to be performed, and the location of any buildings or structures on adjacent land within one hundred feet (100') of the proposed work;
(v) Accurate contours showing the topography of the existing ground extending at least one hundred feet (100') outside all boundary lines of the site, or sufficient to show on-site and off-site drainage;
(vi) Elevations, locations, cross-sections, extent and slope of all proposed grading shown by contours, or other acceptable means and location of any rock disposal areas, buttress fills, subdrains or other special features to be included in the work;
(vii) Detailed plans of all surface and subsurface drainage systems and facilities, walls, cribbing or other erosion protection devices to be constructed in connection with, or as part of the proposed work, together with a map showing the draining area and estimated runoff of the area served by any drainage systems or facilities;
(viii) The location, circumference, of native species and approximate elevation at the base, of all trees. The design of the plans shall attempt to save wherever possible trees and other natural features of high aesthetic value. A tree care specialist shall review the trees to be saved at the site for physical condition and prepare a report setting requirements of grading and development adjacent to the saved trees. These requirements shall be incorporated into the grading plan;

(ix) Location and graphic representation of all existing and proposed natural and manmade drainage facilities;

(x) Location of proposed final surface runoff, erosion and sediment control measures;

(xi) A statement of the quantities of material to be excavated and/or filled and the amount of such material to be imported to, or exported from, the site;

(xii) Outline of the methods to be used in clearing vegetation, and in storing and disposing of the cleared vegetative matter;

(xiii) Proposed sequence and schedule of excavation filling, and other land-disturbing and filling activities, and soils or earthen material storage and disposal; and

(xiv) Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners which are within fifty feet of the property or which may be affected by the proposed grading operations.

(2) **Interim Erosion and Sediment Control Plan (Interim Plan).** All of the following information shall be provided with respect to conditions existing on the site during land-disturbing or filling activities or soil storage:

(i) A delineation and brief description of maximum surface runoff from the site, calculated using methods approved by the City Engineer;

(ii) A delineation and brief description of the measures to be undertaken to retain sediment on the site, including, but not limited to, the designs and specifications for berms and sediment detention basins and a schedule for their maintenance and upkeep;

(iii) A delineation and brief description of the surface runoff and erosion control measures to be implemented, including, but not limited to, types and method of applying mulches, and designs and specifications for diverters, dikes and drains, and a schedule for their maintenance and upkeep; and

(iv) A delineation and brief description of the vegetative measures to be taken, including, but not limited to, seeding methods, the type, location and extent of preexisting and undisturbed vegetation types, and a schedule for maintenance and upkeep.

(v) The location of all the measures listed by the applicant under subsection (b) above shall be depicted on the site map and/or grading plan.

The applicant may propose the use of any erosion and sediment control techniques in the interim plan provided such techniques are reviewed and approved by the City Engineer. The City Engineer shall have authority to required he/she deems necessary.

The requirements for the interim plan may be waived by the City Engineer provided that:

(i) The total area of the site is less than one acre,

(ii) The site will be totally built and landscaped at completion, and

(iii) No adverse erosion or sediment impacts are likely to occur as a result of the development.

(3) **Final Dust, Erosion and Sediment Control Plan (Final Plan).** This plan may be waived by the City Engineer if he/she determines this plan is not necessary.

All of the following information shall be provided with respect to conditions existing on the site after final grading is complete prior to the structures and improvements (except those required under this section) have been completed:

(i) A description of and specifications for sediment retention devices;

(ii) A description of and specifications for surface runoff and erosion control devices;

(iii) A description of and specifications for controlling dust blowing from the site until the final structure/structures are built;

(iv) A description of vegetative measures;

(v) The location of proposed final surface runoff, erosion and sediment control measures;

(vi) A graphic representation of the location of all items in subsections (a) through (b) above;

(vii) An estimate of the costs of implementing all final dust, erosion and sediment control measures must be submitted in a form acceptable to the City Engineer;

(viii) A report of maximum runoff from the site calculated using methods approved by the City Engineer; and

(ix) A complete and detailed specification indicating the material and methods for slope control planting, including ground covers, trees and shrubs, with special emphasis on the following:

(aa) Soil preparation, fertilization, plant material and methods of planting,

(ab) Initial maintenance of the plant material and slopes until a specified percentage of plant coverage is established uniformly on the cut and fill slopes, and

(ac) Minimizing dust, erosion, and sedimentation.

The applicant may propose the use of any dust, erosion and sediment control techniques in the final plan provided such techniques are proven to be as or more effective than the equivalent best management practices contained in the City Standards;

Requirements for the Final Plan may be waived or modified by the City Engineer provided that:

(aa) The site will be totally built and landscaped at completion, and

(ab) No adverse erosion or sediment impacts are likely to occur as a result of the development.

(4) **Soils and Engineering Geology Report.** The soils and geology report required in this chapter shall be prepared by a professional soil investigation firm under the direction of a registered soils engineer and/or an engineering geologist. The City Engineer shall have the authority to waive this requirement if he/she deems there is sufficient data available.

(i) Sufficient soil samples to represent a true cross section of the cut and fill areas and of the material to be used as fill shall be taken and tested under the supervision of the soils engineer. All soils shall be classified in accordance with the unified soils classification system. A report, including all test reports by the soils engineer and geologist, shall be submitted covering the following:

(aa) An adequate description of the geology of the site;

(ab) Conclusions and recommendations regarding the effect

of geologic conditions on the proposed development,(to include building/structure foundation recommendations);

(ac) The location and effects of active faults which may affect the proposed development. The results of seismic activity on the soils as the site is proposed to be graded and on the proposed buildings to be evaluated. Recom-mendations shall be made relating to building distances from nearby active faults and foundation design due to seismic activity. Report is also to include liquefaction potential;

(ad) Data regarding the nature, distribution, strength, expansive quality and erodibility of existing soils;

(ae) Data regarding the nature, distribution, strength and erodibility of soils to be placed on the site, if any;

(af) Conclusions and recommendations for grading procedures;

(ag) Conclusions and recommended designs for interim soil stabilization devices and measures and for permanent soil stabilization after construction is completed;

(ah) Design criteria for corrective measures when necessary;

(ai) Opinions and recommendations covering adequacy of sites to be developed by the proposed grading; and

(aj) Any potential groundwater condition which may affect soil strength, consolidation or slope stability shall be defined and evaluated. This is of particular importance in areas subject to vibratory or shock loadings.

(ii) A complete and detailed specification shall be prepared by the soils engineer for clearing, grubbing, and all aspects of grading, including utility trench backfill, with special emphasis on the depth of fill layers, compaction methods, moisture content, frequency of field density tests, and minimum density to be obtained in the field as related to laboratory density tests.

(iii) A statement regarding specified grading slopes shall be prepared by the soils engineer, giving professional opinion including the following:

(aa) Shrinkage or settlement of a fill constructed in compliance with the proposed specification for controlled earthwork;

(ab) The safe load-bearing capacity of such controlled sites,(allowable soil bearing capacity, including any allowable increases);

(ac) The maximum slope ratios necessary for slope stability for proposed fill and cut slopes, with recommended planting on the slope to assure freedom from erosion; and

(ad) The remaining movement, if any, anticipated in cut areas. Any forecast of appreciable settlement shall be supported by appropriate site soils data.

(iv) Recommendations included in this report and approved by the City shall be incorporated in the grading plans and/or specifications.

(v) All or portions of this requirement may be waived by the City Engineer, provided that:

(aa) The average ground slope of the site is less than ten percent;

(ab) The total site area is less than ten thousand square feet, and

(ac) There are no known geologic hazards on or adjacent to the site.

(vi) The City reserves the right to require additional soils and/or geologic investigations be made if it deems necessary in order to further insure the safety and maintainability of the site.

7-4-106. **Grading regulations.**

(a) **General**

(1) Grading shall conform to the latest edition of the City of Turlock's Standard Specifications and Plans.

(2) Grading shall be designed, as far as possible, so that lot lines are at the top of slope and with adequate property line setback from the slope to provide for required vertical slope rounding.

(3) Grading shall be designed wherever possible to be at the same elevation or below adjoining properties outside the development so as not to negate the privacy of the adjoining property owners. If it is not possible and there are adjoining properties which will be adversely affected, the developer shall be required to either move the slope onto the adjacent property owner's land replacing fences and improvements or replace the property owner's fence (if one exists) at the top of the slope and deed the slope to the property owner. The City may waive this requirement wherein the adversely affected property owner fails to negotiate for either option.

(4) Stockpiling of materials shall be subject to City approval. The City Engineer shall have the authority add conditions to this approval as he/she deems necessary.

(5) All graded surfaces and materials, whether filled, excavated, transported or stockpiled shall meet the following requirements:

(i) All material should be sufficiently watered to prevent excessive amount of dust. Watering should occur at least twice a day with complete coverage, preferably in late morning and after work is done for the day;

(ii) All clearing, grubbing, earth moving, or excavation activities should cease during periods of winds greater than 20 mph average over one hour;

(iii) All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;

(iv) On-site vehicle speeds should be limited to speeds not producing excessive dust generally accepted as 15 mph; and

(v) Streets adjacent to the project site will be swept at least once per day to remove silt which may have accumulated from construction activities.

(6) All grading and noise therefrom including, but not limited to, warming of equipment motors in residential zones, or within one thousand feet of any residential occupancy, hotel, motel or hospital shall be limited between the hours of seven a.m. and seven p.m. weekdays and nine a.m. and eight p.m. weekends, unless other hours are approved by the City Engineer.

(7) Whenever any portion of the work requires entry onto adjacent property for any reason, the permit applicant shall obtain a right of entry from the adjacent property owner or his authorized representative in a form acceptable to the City, and shall file a copy of the fully executed right of entry with the City prior to issuance of the grading permit and/or approval of the grading plans.

(8) Whenever there is a greater than one-half foot (1/2') or greater difference in elevation between existing or proposed lots, a retaining wall shall be constructed to City standards.

(b) **Setbacks**

(1) The tops and toes of cut and fill slopes shall be set back from property lines and structures as far as necessary to provide for safety of adjacent property, safety of pedestrians and vehicular traffic, required slope rounding, adequate foundation support, required swales, berms and drainage facilities and applicable zoning requirements.

(2) The setbacks and other restrictions specified by this section are minimum and may be increased by the chief building official or by the recommendations of a civil engineer, soils engineer or engineering geologist, if necessary, for safety and stability or to prevent damage of adjacent properties from deposition or erosion or to provide access for slope maintenance and drainage. Retaining walls may be used to reduce the required setbacks when approved by the chief building official.

(c) **Preparation of Ground.** The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials scarifying to provide a bond with the new fill.

(d) **Cut and Fill Slopes.**

(1) Cut and fill slopes shall be in general, no steeper than is safe for the intended use or is necessary to insure the protection and safety of adjacent properties.

(2) Unless recommended otherwise by the soils engineer, and approved by the City, the steepness of cut or fill slopes shall not exceed three horizontal to one vertical.

(3) Cut and fill slopes shall be contour rounded as approved by the City during the various stages of approval.

(4) Variable slopes shall be used to mitigate environmental and visual impacts of grading.

(5) Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

(e) **Excavations and Embankments.**

(1) **General:**

(i) Excavations and embankments, in general, shall conform to the latest edition of the City's standard specifications and as required herein.

(ii) Cut and fills shall be designed to balance as near as possible to avoid the nuisances created by off-site hauling. If off-site hauling is determined necessary by the City, details of the hauling operation, including, but not limited to, size of trucks, haul route, dust and debris control measures and time and frequency of haul trips shall be submitted to the City for approval. The City shall be empowered to place such restrictions as it deems necessary to minimize health, safety and general welfare problems which might arise from this hauling.

(iii) All fills shall be compacted to a minimum of ninety percent under building pads and driveways of maximum density as determined by the State Impact Method Test No. 216F or equivalent method approved by the City of determining maximum soil density. Field density shall be determined by a method acceptable to the City. The remainder of the lot shall receive friable compaction or be left in a friable condition.

(2) **Fill Material:**

(i) Detrimental amounts of organic material shall not be permitted

in fills. Except as permitted by the City Engineer, no rock or similar irreducible material with a maximum dimension greater than twelve inches shall be buried or placed in fills.

(ii) The City may permit placement of larger rock when the soils engineer properly devises a method of placement, continuously inspects its placement and approves the fill stability. The following conditions shall also apply:

(aa) Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan;

(ab) Rock sizes greater than twelve inches in maximum dimension shall be ten feet or more below grade, measured vertically; and

(ac) Rock shall be placed to as to assure filling of all voids with fines.

(f) **Erosion and Sediment Control.**

(1) Erosion and sediment control measures shall be implemented as specified by the approved interim and final sediment and erosion control plans. Erosion and sediment control measures shall be consistent with the City Standards.

(2) No grading shall be conducted as to cause erosion or flooding of any natural drainage.

(3) Sediment basins, as required by the interim and final erosion and sediment control plans, shall be constructed to detain runoff and trap sediment. Temporary sediment basin dams and collected silt shall then be removed and resulting material hauled from the site or used as topsoil.

(4) The faces of cut and fill slopes shall be prepared and maintained to control against erosion and to return the slope to its natural appearance as near as possible. The protection for the slopes shall be installed as soon as practicable and prior to final approval. The planting shall be so timed that ground covers will not be washed out by rains nor burned due to lack of water. Where necessary, check dams, cribbing, rip rap and other devices or methods shall be employed to control erosion and to provide safety.

(5) All exposed or finished banks or slopes of any fill or excavation of a commercial or long term subdivision shall be protected from erosion by approved planting, irrigation, hydroseeding, cribbing, walls or terracing, soil treatment or a combination thereof. All graded surfaces exceeding five thousand square feet in area shall be planted and irrigated, paved or built upon and shall be provided with berms and approved drainage facilities adequate to prevent erosion and to conduct the accumulation of runoff of surface waters to an approved place of discharge. It is the intent of this section to prohibit the abandonment of graded areas or slopes which are not provided with erosion protection and adequate requirements in this section have been provided and approved.

(g) **Drainage.**

(1) **General:**

(i) All drainage facilities shall be designed to carry waters to the nearest practicable drainage approved by the City and/or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of non-erosive down-drains or other devices.

(ii) All building sites shall be graded and sloped away from the building foundation with a minimum slope of one and one half percent for a distance of ten feet on all sides of every building, except where yard requirements are less than twenty feet, in which case the soil shall be graded away from the foundation to a minimum of two-tenths of one foot in elevation at a distance not less than one-half the required yard

width.

(iii) Lot drainage shall be directed toward approved drainage facilities at a minimum gradient of one percent.

(iv) The final exterior foundation elevation shall extend above the elevation of the street gutter flow line at point of discharge or the inlet of an approved drainage device a minimum of 12 inches plus 2%; unless waived by the City Engineer.

(h) **Wet Season Work.**

(1) For commencement of the activity during the wet season, the applicant shall demonstrate to the satisfaction of the City Engineer, that erosion and sedimentation can be controlled.

(2) The City Engineer may prohibit the activity during the months in which he/she finds that rainfall will likely preclude compliance with these recommendations.

(i) **Modifications.**

(1) Modifications to the specific grading regulations in this section may be approved or required by the City Engineer upon finding that such modification:

(i) Is necessary to preserve existing natural features, or

(ii) Will reduce the adverse visual impacts of cut and fill operations.

(2) When a soils report is required for the proposed grading, the modifications shall be subject to approval by the soils Engineer.

7-4-107. Security/performance bond.

(a) **Amount for Form of Security.**

(1) The applicant shall provide security for the performance of the work described and delineated on the approved grading plan and interim and final dust, erosion, and sediment control plans in an amount not less than ten percent of the total estimated cost of the work. The estimated cost of work shall be as approved by the City Engineer. In addition the applicant shall provide a Dust Control cash deposit as established from time to time by resolution of the City Council.

(2) The type of security shall be either:

(i) Cash deposit with the City; or

(ii) A certificate of deposit approved by the City Attorney from a financial institution subject to regulation by the state or federal government who said financial institution pledges funds are on deposit and guaranteed for payment, and payable, immediately, partially or in full, to the City upon demand.

(b) **Action Against Security.**

(1) Should the City find that the permitee has failed to comply with any of the following or should any of the following conditions exist, the City Engineer may

take appropriate action against the security after giving written notice to the permitee and surety:

(i) The permitee ceases land-disturbing activities and/or filling and abandons the worksite prior to completion of the work;

(ii) The permitee fails to conform to the approved interim or final erosion and sediment control plans;

(iii) The permitee fails to correct a hazardous condition, to remedy defective work or repair damage caused by the work; or

(iv) The permitee fails to conform to the approved grading plan

and/or any condition of approval.

(2) The written notice to the permitee and surety by the City Engineer shall include:

(i) The work to be completed and/or repairs to be made;

(ii) The approximate cost to perform the required work; and

(iii) The time in which all work is to be completed.

(3) Should the required work not be completed within the time specified by the City, the City may cause such work to be completed or partially completed to a condition acceptable to the City, and deduct the cost thereof from any cash deposit or collect such amount from the surety.

(c) **Release of Surety.** Any unused security posted with the City for faithful performance shall be released as follows:

(1) Eighty percent of the unused security will be returned upon completion and acceptance of the work by the City Engineer (less any outstanding claims); and

(2) Any remainder of the security will be released twelve months after completion and acceptance by the City Engineer provided all defective work is corrected to the satisfaction of the City Engineer.

7-4-108. Permit approval, conditional approval or denial

(a) **General.** No permit shall be approved or issued until all required plans, reports, documents and security have been submitted and approved by the City Engineer and all fees have been paid.

(b) **Action by the City Engineer.**

(1) The City Engineer, or authorized representative, shall review all plans and documents submitted pursuant to this chapter and, if necessary, request additional data, clarification of submitted data or correction of defective submissions within twenty working days after the date of submission. The City Engineer shall notify the applicant in writing of his approval, conditional approval or denial of the permit application within thirty calendar days of the initial submission or of the corrected submissions, whichever is later.

(2) In the case of subdivisions, the approval to proceed by the City Engineer, after having signed grading plans and having received all required bonds, fees, agreements and deeds, shall constitute the approval for a grading permit. A no fee grading permit, provided the inspection and security for the grading operations is paid with the map, shall be required prior to grading operations. Grading shall be defined as an improvement for the purpose of the subdivision improvement agreement.

7-4-109. Permit duration, suspension, revocation or assignment.

(a) **Duration of Permit.**

(1) Permits issued under this chapter shall be valid for the period specified on the permit form, or as specified by an improvement agreement.

(2) Should grading not commence within sixty calendar days of the time specified on the permit, the City Engineer may void the permit and require a reapplication for issuance of a new permit.

(3) The City Engineer may grant an extension of time upon just showing by the permitee. The City Engineer may require additional fees or reasonable conditions in consideration for such time extension.

(b) **Suspension or Revocation of Permit.**

(1) **General.** The City Engineer shall first resort to the procedures set forth in this section before any other enforcement procedure set forth in this chapter is implemented.

(2) **Suspension.**

(i) The City Engineer shall suspend the permit and issue a stop work order, and the permitee shall cease all work on the work site, except work necessary to remedy the cause of the suspension, upon notification of such suspension when:

(aa) The City Engineer determines that the permit was issued in error or on the basis of incorrect information supplied, or in violation of any ordinance or regulation or the provisions of this title;

(ab) The permitee fails to submit reports where required;

(ac) The work on site is not being performed in accordance with approved plans and specifications;

(ad) The permitee fails to comply with an order to modify the work within the time limits imposed by the City Engineer;

(ae) The permitee is causing excessive erosion and/or sediment; or

(af) The permitee is not complying with the requirements for Dust Control.

(ii) The City Engineer may reinstate a suspended permit upon the permitee's correction of the cause of the suspension.

(3) **Revocation.**

(i) The City Engineer may revoke the permit and issue a stop work order upon finding the permitee:

(aa) Conducts or carries on the grading in such a manner as to materially affect adversely the health, welfare or safety of persons residing or working in the neighborhood of the property of the permitee;

(ab) Conducts or carries on the grading so that the grading is materially detrimental to the public welfare or injurious to property or improvements in the neighborhood; or

(ac) Fails to cease work under an order of suspension.

(ii) Any revocation will be effective immediately upon notification by the City Engineer. The City Engineer shall not reinstate a revoked permit.

(c) **Assignment of Permit.** A permit issued pursuant to this chapter may be assigned, provided:

(1) The permitee notifies the City Engineer of the proposed assignment.

(2) The proposed assignee:

(i) Submits an application form;

(ii) Agrees in writing to all the conditions and duties imposed by the permit;

(iii) Agrees in writing to assume responsibility for all work performed prior to the assignment;

(iv) Provides the necessary security/performance bond(s); and

(v) Agrees to pay all applicable fees.

(3) The City Engineer approves the assignment.

7-4-110. Responsibility of permitee, permitee's engineer and contractor.

(a) **Permittee/Contractor.**

(1) The permitee and contractors or agents shall be responsible for the satisfactory and safe conduct of all work.

(2) The permit applicant and grading contractor shall be responsible for the protection of adjacent properties during grading operations. Prior to commencing any grading of the site, the exterior boundaries shall be marked as required by the City Engineer. Boundary markers shall be maintained throughout the grading operation. Temporary barriers and/or protective fencing shall be used when necessary to protect adjacent properties.

(3) In addition to the security to be posted in accordance with Section 7.4.107, the applicant shall agree to employ a civil engineer, soils engineer and/or engineering geologist to give technical supervision or make inspections of the work whenever a soils report has been required for the proposed grading.

(4) The permitee shall maintain a copy of the permit, approved plans and reports on the worksite and available for public inspection during all working hours.

(5) The permitee shall, at all times, be in conformity with approved site map and grading plan and interim and final plans.

(6) Unless waived by the City Engineer, the permitee shall notify the City Engineer within thirty-six hours of the following:

(i) The beginning of the permitted activity;

(ii) The completion of rough grading;

(iii) The completion of finish grading;

(iv) The installation of all erosion control devices and the completion of planting requirements; and

(v) The readiness of the site for final inspection, including but not limited to, finished grading, installation of drainage devices and final erosion control measures.

(7) The permitee shall submit to the City Engineer written reports if:

(i) There are any delays in obtaining materials, machinery, services or manpower necessary to the ilpmementation of the grading and interim of final plans as scheduled;

(ii) There are any delays in land-disturbing or filling activities or soil storage;

(iii) The work is not being done in conformance with the approved grading plan or interim or final plans;

(iv) There are any departures from the approved grading plan which may affect implementation of the interim or final plans as scheduled;

(v) There are any delays in the implementation of the interim or final plans; or

(vi) There are any other departures from implementation of the interim or final plans.

(8) Unless this requirement is waived by the City Engineer, the permitee shall submit recommendations for corrective measures, if necessary and appropriate, with the reports.

(9) The City will review all reports submitted by the permitee. The City Engineer may require the permitee to modify the site map and grading plan, interim or final plans, and maintenance methods and schedules. The City Engineer shall notify the

permitee in writing of the requirement and specify a reasonable period of time within which the permitee must comply. All modifications are subject to the City Engineer's approval.

(b) **Soils Engineer.**

(1) The soils engineer's area of responsibility shall include, but need not be limited to, the professional inspection and certification concerning the preparation of ground to receive fills, testing for required compaction, stability of all finished slopes and design of buttress fills and the design and need for subdrains and other groundwater control devices, where required, incorporating data supplied by the engineering geologist.

(c) **Civil Engineer.**

(1) It shall be the responsibility of the Civil Engineer who prepared the approved grading plans to incorporate all recommendations from the soils engineer into the grading plan. He shall also be responsible for the professional inspection and certification of the grading within his area of technical specialty. The civil engineer shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the City. The civil engineer shall also be responsible for the preparation of revised plans and the submission of as-graded plans upon completion of the work.

(2) Prior to foundation work, the permitee's engineer shall certify that the building pad elevations do not vary more than two-tenths of one foot from the approved pad elevations. This certification shall be submitted to the City prior to any foundation work beginning.

(3) When work has been completed, all drainage devices, systems and facilities installed and slope planting established, the civil engineer shall certify that all grading, lot drainage and drainage facilities have been completed and the slope planting installed in conformance with the approved plans and the requirements of this chapter.

(d) **Engineering Geologist.**

The engineering geologist's area of responsibility shall include, but is not necessarily limited to, professional inspection and certification of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters. He shall report his findings to the soils engineer and the civil engineer for engineering analysis.

7-4-111. Inspection.

(a) **General.**

(1) All grading operations for which a permit is required shall be subject to inspection by the City.

(2) The City, upon at least thirty-six hours' prior notification from the permitee or his agent, shall inspect the work at the following stages of the work and shall either approve the portion then completed, or shall notify the permitee or his agent wherein it fails to comply with the requirements of this chapter:

(i) **Initial.** When the site has been cleared of vegetation and unapproved soils have been scarified and/or removed, benched or otherwise prepared and before any fill is placed.

(ii) **Rough.** When rough grading has been completed and approximate final elevations have been established; drainage terraces, swales and other drainage devices graded ready for paving; and berms installed at the top of slopes.

(iii) **Final.** When all grading has been completed, all drainage facilities installed and slope planting completed and all certifications filed with the City.

(3) In addition to the inspections specified in this section, the City may

make such other inspections as it deems necessary to determine that the work is being performed in compliance with the requirements of this chapter.

(4) During grading reports on compaction data and soils engineering test results and recommendations shall be submitted to the civil engineer and the engineering geologist on a weekly basis or more frequent basis, if required by the City Engineer.

(5) If, in the course of fulfilling his responsibility under this chapter, the civil engineer, the soils engineer, the engineering geologist or the testing agency finds that the work is not being done in conformance with this chapter, or the approved grading plans, the discrepancies shall be reported immediately in writing to the permitee and to the City Engineer. Recommendations for corrective measures, if necessary, shall be submitted for City approval.

(6) If the civil engineer, the soils engineer, the engineering geologist or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of-his technical competence for certification upon completion of the work.

(b) **Testing.**

(1) The soils engineer shall perform sufficient testing during the grading operations to adequately certify that the grading is performed in accordance with the approved plans, specifications and as required by this chapter.

(2) Periodic compaction tests and soils samples shall be made on all fills and submitted to the City. The test results shall include the dry density, moisture content, location, elevation and sampling date of each sample taken shall be reported, along with sufficient data to correlate with laboratory analyses submitted.

(c) **Final Reports and As-built Plans.** Upon final completion of the work, the following reports and drawings and supplements thereto shall be submitted to the City:

(1) A soils and geologic grading report prepared by the soils engineer or registered Civil Engineer, including locations and elevations of field density tests (compaction reports), summaries of field and laboratory tests and other substantiating data and comments on any changes made during grading and their effect on the recommendations made in the soil engineering investigation report;

(2) An as-graded grading plan prepared by the civil engineer, including original ground surface elevations, as graded ground surface elevations, lot drainage patterns and locations and elevations of all surface and subsurface drainage facilities; and

(3) An as-built erosion and sediment control plan prepared by the civil engineer.

7-4-112. Parking lots.

(a) Minimum parking lot grades for asphalt concrete shall be 1%.

(b) Minimum grade for concrete ribbon drains shall be 0.5%.

(c) Plan Check and Inspection of the parking lot grading, construction of curbs, gutters, drainage or other appurtenant structures, and the paving shall be performed by the Municipal Services Department, Engineering Division. A grading permit shall be obtained from the Engineering Division and an inspection fee paid. City Engineer shall have the authority to request changes to the plan as he/she deems necessary for drainage and circulation.

(d) The contractor shall be responsible for the clearing of the proposed work area, and relocation costs of all existing utilities. The City will be informed 24 hours prior to

beginning of construction.

(e) A compaction report by a Soils Engineer shall certify 90% sub-base and 95% of base prior to calling for second inspection and placement of asphalt paving.

(f) If no preliminary soils report is provided specifying the paving section, the structural section shall be two inches asphalt concrete and four inches class II aggregate bases.

7-4-113. Hazards

Whenever the City Engineer determines that any existing excavation or embankment or fill has or may become a hazard to life or limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of the property, upon receipt in writing from the City, shall within the period specified therein repair or eliminate such excavation or embankment so as to eliminate the hazard and be in conformance with the requirements of this chapter.

7-4-114. Appeals.

(a) The applicant, permitee or permitee's agents or any person(s) adversely affected, not satisfied with the decision by the City Engineer in regard to the issuance of a grading permit or performance of the work, may appeal to the City Council as provided by Title 1, Chapter 4 of this Code.

(b) Any such appeal must be made within three calendar days following the decision.

(c) The City Council will set a hearing to consider the appeal at the earliest possible regularly scheduled City Council meeting. Written notification of the hearing time and date will be given to the appellant and any interested person(s) requesting such notification, not less than seven calendar days prior to the scheduled hearing.

(d) The City Council, after receiving and considering all testimony and pertinent documents may:

(1) Uphold the City Engineer's decision; or

(2) Approve the appeal; or

(3) Modify the City Engineer's decision, consistent with the requirements of this chapter.

7-4-115. Nuisances

The provisions of this chapter shall not be construed to authorize any person to maintain a private or public nuisance upon their property, and compliance with the terms of this chapter shall not be a defense in any action to abate such nuisance.

7-4-116. Other laws.

Neither this chapter nor any administrative decision made under it:

(a) Exempts the permitee from procuring other required permits or complying with the requirements and conditions of such a permit; or

(b) Limits the right of any person to maintain, at any time, any appropriate action, at law or in equity, for relief or damages against the permitee arising from the permitted activity.

7-4-117. City held harmless.

The permitee, permitee's contractors and agents shall indemnify and save harmless the City and all officers and employees thereof connected with the work, from all claims, suits or actions of every name, kind and description, brought for, or on account of, injuries to or death of any person or damage to property resulting from the issuance of the grading permit, construction of the work or by or in consequence of any negligence in guarding the work, use of improper materials in construction of the work, or by or on account of any act or omission by the permitee or permitee's agents.

7-4-118. Fines and penalties.

Any person, firm, corporation or agency acting as principal, agent, employee or otherwise, who fails to comply with the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof, shall be punishable by a fine of not less than one hundred dollars and not more than five hundred dollars, or by imprisonment in the county jail for not more than thirty days, or by both, for each separate offense. Each day any violation of this chapter shall continue shall constitute a separate offense.

7-4-119. Severability and validity.

If any part of this chapter is found not valid, the remainder of this chapter shall remain in effect.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Turlock this 28th day of May, 2002, by the following vote:

AYES:	Councilmembers Hatcher, Lazar, Wallen, Yerby and Mayor Andre
NOES:	None
ABSTAIN:	None
NOT PARTICIPATING:	None
ABSENT:	None

Signed and approved this 28th day of May, 2002.

_____
CURT ANDRE, Mayor

ATTEST:

_____
Rhonda Greenlee, CMC
City Clerk, City of Turlock, County
of Stanislaus, State of California