



CITY OF SANTA MARIA

GRADING & DRAINAGE PLAN STANDARDS



Grading and drainage plans shall be submitted for review and approval to the City of Santa Maria Building Division for all apartment, condominium, residential subdivisions, commercial and industrial developments or other project where a grading permit is required by Appendix Chapter J of the California Building Code. Residential projects with sites less than 10,000 square feet and which do not require more than fifty (50) cubic yards of cut or fill earth to be moved need not comply with the retardation basin requirements described within these standards.

1) GRADING PLAN FORMAT

Size of drawings shall be:

- a) 18" x 26"
- b) 24" x 36"
- c) 30" x 42"

In all cases, grading plans shall be the same blueprint size as the submitted architectural plans if grading is in conjunction with a building permit. Grading plans shall be drawn to the same scale as the architectural site and landscape plans.

Grading plans shall contain a grading symbols legend.

2) GRADING PLAN FEES

Grading Plan Check and Grading Permit fees are determined based on the largest volume of cut, fill, import, or export earth to be moved within, to, or from the site. Plan Review fees are due at the time of grading plan submittal. Grading Permit fees are due at the time of Grading Permit issuance.

3) GRADING PLAN SUBMITTAL

The applicant may submit drawings and request permits for rough, stockpile, remedial, or fine/finish grading plans. Six (6) completed sets of grading plans shall be submitted for review and approval if a stockpile, remediation or rough grading permit is requested.

Rough Grading Plan: includes retardation basin.

- a) For sites disturbing one (1.0) acre or more, approval requires submittal of the Notice of Intent (NOI) Package, including the completed NOI and check sent to Regional Water Quality Control Board (RWQCB), and two copies of the Storm Water Pollution Prevention Plan (SWPPP) – one final for the City and one final for the job site. All grading permits requiring a SWPPP shall also require an Encroachment Permit from the City of Santa Maria Engineering Division. The requirements of the Encroachment Permit include an approved SWPPP, a cash deposit to ensure installation of Best Management Practices (BMPs), and payment of fees. Certificates F (Rough Grading) and I (Erosion Control) must be signed and made a part of the plans. Show total cut and total fill yards.
- b) For sites disturbing less than one (1.0) acre, the plans must include a complete Erosion and Sediment Control Plan (ESCP) and two copies of a completed Erosion and Sediment Control Plan Form (Attachment "A") – one final for the City and one final for the job site. Certificates F (Rough Grading) and I (Erosion Control) must be signed and made part of the plans. Show total cut and total fill yards.

Stockpile Plan: Includes same basic requirements as Rough Grading Plan. Measures must be shown which will leave the site in compliance with City of Santa Maria Standard Erosion and Dust Control Standards. Show total fill (stockpile) yards.

Remedial Plan: Similar to Stockpile Plan requirements. Total cut/fill yards must be shown. For Oil Sump Remediation, please include a cross-section drawing of the sump. Note on plans that high visibility construction safety fencing must be installed around the excavation site. Include a draft copy of the "Remedial Action Plan" which was submitted to the Santa Barbara County Petroleum Office at 624 West Foster Road, Bldg. B, Santa Maria, 93455, (805) 934-6128, for distribution to the Santa Barbara County Fire Prevention Division (SBCFPD) at 2125 Centerpointe Parkway #333, Santa Maria 93455, (805) 346-8477.

Fine/Finish Grading Plan: Include all finished floor elevations, parking lot details, location and sizes of all water meters, sewer lines, storm drains, electric services, property lines, and all retention basin details. Show all walls including summary of heights and lengths, and provide engineering for walls over six (6) feet high. Certificates A, B, C, D, G, H, I, and J must be made a part of the plans, and Certificates A, D, I, and J must be signed for issuance.

The Central Coast Regional Water Quality Control Board has adopted Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (PCRs). Projects are subject to the requirements if they will create or replace 2,500 square feet or more of impervious area.

The PCRs mandate that development projects use Low Impact Development (LID) to detain, retain, and treat runoff. LID emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrology.

Develop a Stormwater Control Plan (SCP) per the PCRs and submit three (3) copies for review and approval. The SCP shall include at least a preliminary Maintenance and Operations Plan describing maintenance requirements for each stormwater facility on site. Include a site plan sheet showing implementation of the SCP on site. Include sizing calculations, details of bioretention design, and dimensions of drainage management areas. Guidance and templates are available at: <http://www.sbprojectcleanwater.org>. A Maintenance Agreement shall be completed, signed and recorded upon approval of the SCP.

If the grading proposed is in conjunction with a building permit, each set of architectural plans shall contain a site, landscape, and grading plan. Additionally, two (2) sets of site, landscape, and grading plans shall be submitted independently of the architectural plans at the time of building plan review.

Applicants requesting a fine or finish grading plan approval prior to submittal or approval of building plan approval shall submit six (6) completed sets of the architectural site plans, utility plans, and landscape plans with the finish grading plan submittal. The architectural site plan and fine grading plans shall be approved prior to issuance of the fine grading permit.

Grading and architectural site plans must be designed by, and bear the signature, registration number, license expiration date, and seal of a California registered Civil Engineer, Land Surveyor, or Architect responsible for the design prior to approval of plans.

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Two (2) copies of the site soils report identifying soil type, grading, and foundation recommendations shall be submitted with all grading permit applications.

Two (2) copies of structural design calculations shall be submitted for all retaining walls higher than four (4) feet, masonry walls higher than six (6) feet or any combination of retaining wall/fences of any height.

4) GRADING PLAN CERTIFICATES

The City of Santa Maria does not employ a Grading Inspector and thus requires that the owner or developer's Civil Engineer, Land Surveyor or Architect provide the following certifications on the Grading Plans. These Certificates must be completed for each phase of work:

A. OWNER/DEVELOPER CERTIFICATE: {Sign prior to approval of grading plans}

I, _____, Owner/Developer of the _____ project, will have a licensed civil engineer, land surveyor or architect certify:

- 1) That prior to the construction of any building foundation, the lot boundaries have been clearly identified on the site; the graded pad elevations are as shown on the approved Grading Plan; and the proposed building(s) are located in conformance with the approved City Site Plan; and the finish floor elevations are in conformance with the approved City Site and Grading Plans.
- 2) That the finished grades have been field checked and that the site finished grading work has been completed in substantial conformance with the approved Grading Plan.
- 3) That finished grades comply with the City of Santa Maria's Flood Plain Management ordinance and the National Flood Insurance Act, where these are applicable.
- 4) That the masonry walls have been constructed as shown on the approved grading plan, including certification of the top of footing and top of wall elevations.
- 5) That the erosion and sediment controls were installed correctly in compliance with the Erosion and Sediment Control Plan or Storm Water Pollution Prevention Plan and were maintained throughout the duration of the project.

Signature: _____ Date: _____
 {Owner/Developer}

B. BUILDING PAD ELEVATION CERTIFICATE: {Sign prior to inspection of foundation}

I have checked the on-site grading at the time the building pads have been graded in preparation for building foundations and prior to the commencement of any building foundation work on the pads. I hereby certify that the lot boundaries have been clearly identified on the site, and that the graded pad elevations are as shown on the approved Grading Plan.

Name: _____ License Number: _____

Signature: _____ Date: _____
 {Licensed Professional}

C. FINISH FLOOR ELEVATION CERTIFICATE: {Sign prior to construction of foundation}

I certify that the foundation forms are set at the approved finish floor elevation(s) and the building location(s) is/are in conformance with the approved Site and Grading Plans.

Name: _____ License Number: _____

Signature: _____ Date: _____
 {Licensed Professional}

D. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AND FLOOD INSURANCE RATE MAP (FIRM) CERTIFICATE: {Complete and sign prior to approval of grading plan}

Community Number: 060336 Panel Number: _____

Date of FIRM: _____ Date of FIRM Amendments: _____

FIRM Zone: _____

Base Flood Elevation: _____ NGVD '29 _____ Other {Reference Datum}

The lowest floor elevation in all A-Zones, where Base Flood Elevations are utilized, will be field checked, "as-built" and certified prior to occupancy of the structure(s) by a licensed civil engineer, land surveyor or architect as required to comply with the City of Santa Maria Flood Plain Management

Ordinance and FEMA required information from the Flood Insurance Rate Map.

Elevation datum used on the FIRM for Base Flood Elevation {In AO Zones use depth} is the National Geodetic Vertical Datum (NGVD), 1929. {If the elevation datum system used is different than that used on the FIRM, convert the elevations to the datum system used on the FIRM and show the conversion equation below this Certificate.}

I certify that the information on this certificate represents my best efforts to interpret the data available. If the project is not in an A-Zone and not subject to Base Flood Elevation requirements, the applicable zone is noted. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Certifier's Name: _____ License Number: _____

Title: _____ Phone: _____
Address: _____ City: _____ State: _____ Zip: _____

Signature: _____ Date: _____
{Licensed Professional}

E. FINAL INSPECTION GRADING CERTIFICATE: {Sign for final, or prior to occupancy}

The drainage design and elevations shown on the approved grading plans have been field checked by a licensed civil engineer, land surveyor or architect and are found to be in substantial conformance with the design and elevations shown, or "as-built" plans have been submitted to the City for approval. A copy of these City approved "as-builts" is attached herewith if applicable.

Name: _____ License Number: _____

Signature: _____ Date: _____
{Licensed Professional}

F. ROUGH GRADING PLAN CERTIFICATE: {Owner to sign prior to approval of permit}

This rough grading approval is based upon the following:

Preliminary Site Plan, dated: _____

Soils Report, dated: _____

It is not a final grading approval, and such final grading approval may be subject to change and revision from this rough grading approval.

Acknowledged by: _____ Date: _____
{Owner/Developer}

G. WALL FOOTING CERTIFICATION {Sign prior to placing concrete in the footing}

I have checked the elevations of the wall footings and their location in reference to the approved plan and certify that the elevations conform to the top of footing elevations as shown on the approved Grading Plan.

Name: _____ License Number: _____

Signature: _____ Date: _____
{Licensed Professional}

H. WALL HEIGHT CERTIFICATION {Sign after completion of walls}

I have checked the top of wall elevations and certify that the elevations conform to the top of wall elevations as shown on the approved Grading Plan.

Name: _____ License Number: _____

Signature: _____ Date: _____
{Licensed Professional}

I. EROSION CONTROL CERTIFICATION {Sign to guarantee that erosion control measures will be installed}

I hereby certify that all erosion and sediment control measures will be installed per plans and also to my satisfaction to prevent the illegal discharge of storm water pollutants from the project site. The undersigned shall be the designated responsible person for the successful implementation of these methods. The undersigned shall also ensure that damages to the erosion and sediment control measures due to construction processes or severe storms shall be repaired immediately to fully functioning condition.

(Responsible Person)

(Date)

(24-hour Contact Telephone Number)

J. SITE DESIGN AND RUNOFF REDUCTION CERTIFICATION: {Required for all projects that create or replace >2,500 square feet of impervious surface; sign prior to approval of fine grading plans}

As the design professional in responsible charge of this project, I certify the following design strategies have been implemented:

- 1) Limit disturbance of creeks and natural drainage features;
- 2) Minimize compaction of highly permeable soils;
- 3) Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection;
- 4) Minimize impervious surfaces by concentrating improvements on the least-sensitive portions of the site, while leaving the remaining land in a natural undisturbed state; and
- 5) Minimize stormwater runoff by implementing one or more of the following site design measures:
 - (a) Direct roof runoff into cisterns or rain barrels for reuse;
 - (b) Direct roof runoff onto vegetated areas safely away from building foundation and footings, consistent with California Building Code;
 - (c) Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas safely away from building foundations and footings, consistent with California Building Code;
 - (d) Direct runoff from driveways and/or uncovered parking lots onto vegetated areas; or
 - (e) Excluding facilities within the public right-of-way, construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways, and patios with permeable surfaces.

Name: _____ License Number: _____

Signature: _____ Date: _____
{Licensed Professional}

5) EROSION CONTROL NOTES

The following erosion control notes are to be incorporated into the grading plan:

No project construction shall cause the City of Santa Maria to be in a condition of non-compliance with State Water Resources Control Board Water Quality Order No. 2013-0001-DWQ Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit), or any successor permit.

The Grading Permit holder and the Owner/Developer shall install erosion and pollution control measures in compliance with the project Storm Water Pollution Prevention Plan (SWPPP) or Erosion and Sediment Control Plan (ESCP) approved by the City of Santa Maria. Best Management Practices (BMPs) capable of preventing the migration of storm water and associated pollutants off site shall be implemented and maintained during all construction, earth moving and grading phases of a project. Failure to do so will result in the issuance of a "Stop Work" order, which will not be released until such time as an adequate program is implemented.

Dust control measures capable of preventing the migration of dirt and dust off site, in a manner acceptable to the City of Santa Maria shall be implemented and maintained during all construction, earth moving, and grading phases of the project. Failure to do so will result in the issuance of a "Stop Work" order which will not be removed until such time as an adequate program is implemented.

During the clearing, earth moving and grading phases of the project, water trucks or sprinkler systems shall be used in sufficient quantities to prevent dust from leaving the site. In addition, the entire area of disturbed soils shall be wetted down during the early morning hours and at the end of each day in such a manner as to create a crust.

During the construction phase of the project, water trucks or sprinkler systems shall be used to keep all areas of vehicular movement damp enough to prevent dust raised from leaving the site. As a minimum, this will include the wetting down of such areas in the late morning hours and at the close of each day's activities. Increased watering frequency will be required as necessary to prevent dust from leaving the site.

All trucks hauling soil materials to and from the site shall be covered with a tarp to prevent dust from blowing off the truck.

All alleyways, circulation routes, haul routes, streets and sidewalks shall be kept clean and clear of dirt, dust and debris in a manner acceptable to the City of Santa Maria. As a minimum, said areas shall be cleaned at the end of each working day or more often if directed by City personnel. The flushing of dirt or debris to storm drain or sanitary sewer facilities shall not be permitted. Failure to keep these areas clean will result in the issuance of a "Stop Work" order, which will not be removed until such time as the area is cleaned in a manner acceptable to the City.

Earth moving and grading activities shall be limited to the hours between 7:00 A.M. and 6:00 P.M. Monday through Friday, 8:00 A.M. and 5:00 P.M. Saturday, and no construction Sunday and designated Holidays.

After completion of the clearing, grading, or excavation phase, the entire area of disturbed soil shall be treated to prevent dust from leaving the site. Any one of the following methods may accomplish this:

- a) The seeding and or watering of the site until such time as the ground cover has taken root.
- b) The spreading of soil binders.
- c) The wetting down of the area in such a manner as to create a crust on the surface and the repeated soaking of the area, as necessary, to maintain the crust and prevent soil blowing.

The contractor or builder shall designate a person or persons to monitor the dust control program, and to order increased watering as necessary to prevent the transport of dust off-site. This person's duty shall include holiday and weekend periods when work may not be in progress. Any change to the person or persons listed below shall be provided, in writing, to the City of Santa Maria Community Development Department and Public Works Department.

Name: _____ Phone #: _____

Name: _____ Phone #: _____

All grading permits requiring a Storm Water Pollution Prevention Plan (SWPPP) shall also require an Encroachment Permit from the City of Santa Maria Engineering Division.

6) GENERAL NOTES

The following general notes are to be incorporated into the grading plan:

- a) All tract boundary walls shall be staked and verified for height and location by the Civil Engineer or Land Surveyor.
- b) All areas under Public and Private streets, curbs and gutters shall be compacted to ninety five (95) percent relative density.
- c) If any oil sumps or contaminated soils are found during the grading of the site, all grading in these areas shall cease. Soils chemical test shall be taken with results provided to the City of Santa Maria Building Division and the County of Santa Barbara Environmental Health Department. Grading may recommence after approval from the Santa Barbara County Environmental Health Department and the City of Santa Maria Building Division has been obtained. All contaminated earth shall be removed from the site and/or disposed of in an approved manner.
- d) All work performed in the City right-of-way requires an encroachment permit from the Santa Maria Public Works Engineering Division located at 110 South Pine Street. Permits are to be obtained prior to beginning work.
- e) Soils compaction reports are required and the reports shall be provided to the City of Santa Maria Building Division at completion of grading and prior to foundation placement.
- f) All grading is to comply with Chapter 18 and Appendix Chapter J of the most current adopted version of the California Building Code.
- g) Section 4216/4217 of the Government Code requires a Dig Alert Identification (ID) Number is issued before a "Permit to Excavate" will be valid. For your Dig Alert ID Number, call Underground Service Alert at 1-800-422-4133 (Toll Free) two (2) working days before you dig.
- h) All proposed and/or existing slope or drainage easements are shown on this grading plan.
- i) All proposed grading, except for off-site import earth, shall be maintained within the boundaries of the site for which the grading permit is issued.
- j) The project Storm Water Pollution Prevention Plan (SWPPP) (or Erosion and Sediment Control Plan [ESCP] for projects under one acre) outlines site storm water pollution issues and Best Management Practices (BMPs) to prevent illegal discharges of storm water pollutants from the construction site. Contractor shall maintain an approved copy of the SWPPP on-site at all times during construction, and shall implement adequate BMPs to comply with the State General Permit. Failure to do so will result in the issuance of a "Stop Work" order until the illegal discharge is adequately ended, cleaned up, and prevented from further occurrence.

7) GRADING PLAN REQUIRED INFORMATION

Information provided on the grading plan shall include:

- a) Assessor's Parcel Number or site address.
- b) Vicinity map, north arrow, and graphic scale.
- c) Grading plan designer's name, address, phone, signature, seal, registration number and expiration date of license.
- d) Grading plan legend identifying all symbols and abbreviations.
- e) Rough grading, stockpile or remediation plans shall dimension distance between property lines and any structures. Fine grading plans shall not be approved without architectural site plans, which show all building setbacks to pads or structures.
- f) Building pads and finish floor elevations.
- g) Flow line elevations along all drainage courses.
- h) Flow line elevations where on-site drainage meets the public drainage system.

- i) Existing and proposed grades at adjoining lot lines and at all property line corners/intersections.
- j) Retardation basin high water limits.
- k) Earth quantities of cut and fill in cubic yards.
- l) Sufficient contours or grade points to show that the retardation basin is capable of retaining the required amount.
- m) Overland escape location and elevation from retardation basin.
- n) Calculation documenting minimum required volumetric capacity of the retardation basin as per standards.
- o) Total proposed retardation basin volume.
- p) Calculations documenting maximum bleeder discharge rate permitted from the basin as per standards.
- q) Hydraulic orifice sizing calculation justifying the bleeder opening using the allowed flow rate and depth of basin.
- r) Design retardation basin such that all on-site drainage flows to the basin before exiting the site.
- s) Location of all roof drain termination points.
- t) Detailed cross section of the concrete swale when proposed.
- u) Identify all streets which are private and which are public.
- v) A completed wall/fence table for each type of retaining wall, block wall, fence identifying type of wall, height of wall, linear footage of each wall proposed.
- w) Note all hydroseeding or soil binder requirements.
- x) Show all handicap curb cuts and ramps proposed.
- y) Show section view through private streets/parking areas showing street construction and curb construction.
- z) Show all existing and/or proposed slope or drainage easement boundaries.
- aa) Drive approaches and their locations.
- bb) Compaction requirements for pads and roads.
- cc) Proposed on-site property line grades at fifty (50) feet on center.
- dd) Existing off-site contours starting at the property lines and extending to ten (10) feet beyond property lines within adjacent parcels.
- ee) Identify height and location of all existing walls and/or fences at property lines.
- ff) Flow arrows showing direction and percent fall of drainage to an approved location.
- gg) Show property line corner elevations and grade break elevations.
- hh) Show top of footing, top of retaining, top of wall elevations for all walls or provide wall profile elevation plans.
- ii) Grading Certificate A (Owner/Developer Certificate) shall be completed and signed.
- jj) Identify Base Flood Elevation (BFE) for each structure in the Special Flood Hazard Area (SFHA). For AO Zones, the applicable BFE is the depth number added to the highest adjacent grade.
- kk) Identify the highest adjacent grade for each proposed structure in an AO Zone.

8) USEFUL GRADING INFORMATION

- a) The finish floor of buildings must be twelve (12) inches plus one (1) percent above the overflow water inundation level of the retardation basin (when required) or low point of lot. This distance is measured from the closest edge of the building to the overflow water inundation level of the retardation basin (when required) or low point of lot (CBC, Sec. 1805.3.4 as amended by SMMC Sec. 9-1.212).
- b) City of Santa Maria Building Division requires steel to be placed within concrete gutters located in areas of vehicle travel.
- c) Identify location of all existing underground gasoline tanks and indicate if they are to be removed at this time or if they have been previously removed. If previously removed, identify as such and state the permit number issued for their removal.
- d) For each drive approach shown on the grading plan specify the percent slope towards the street. No slope may exceed ten (10) percent as per City of Santa Maria Ordinance, Section 12-32.26 without providing transitions as required.
- e) All streets that are private require a permit from the Community Development Department.

- Provide complete "private improvement plans" for review and approval showing details of all curbs, gutters, fire hydrants, handicap ramps, and light poles. All references to City Standards shall be accompanied by the Standard Number.
- f) For all streets that are private, provide electrical plans for all streetlights. Provide light pole footing details, make and model of street lights, conduit sizes for feeders, feeder sizes, feeder wire insulation types, electrical meter location, and panel schedule for complete installation of private street lights. If proposed lights are not per City Standards or PG&E Standards and at City Standard spacing, provide signed, stamped, Electrical Engineer's report identifying foot-candle lighting levels. Lighting levels shall comply with minimum City Standards for street type proposed.
 - g) Without legal documentation, no water may flow over the property lines, or over interior lot lines. Also, interior lot lines are typically not approved with a common swale on the property line.
 - h) Identify if any grading is to be performed on adjacent parcels or properties. Adjacent off-site grading requires approval from the Community Development Department, subject to documenting approval from adjacent affected parcel owners.
 - i) If the subject property is land locked, provide written documentation for how the applicant proposes to bring in the fill earth or grade the site. Copies of agreements from affected adjacent parcel(s) are to be submitted to the Community Development Department for file records prior to grading permit issuance.
 - j) If no retardation is proposed, identify on the grading plan why no retardation is provided. If an off-site basin exists for the parcel, identify location and under what legal instrument this off-site basin was created. This information is needed so that the plans stand-alone and anyone unfamiliar with the original subdivision is informed as to the waiver of retardation on site.
 - k) Grading in areas controlled by Santa Barbara County Flood Control District or drainage flowing directly into a District facility will require plan review by the Santa Barbara County Flood Control District. The applicant may be required to pay the District their regular plancheck fee.
 - l) Existing easements must be abandoned as set out in the Streets and Highways Code, Section 8330 prior to issuance of building or foundation permits.
 - m) If the site is presently partially or totally improved, only the unimproved portions to be developed are subject to the retardation requirements. Any existing retardation volumes shall be maintained.
 - n) Residential finish floor elevations shall be a minimum of sixteen (16) inches above the lowest top of curb. (SMMC Sec. 9-1.212.)

9) RETARDATION BASIN CAPACITY

With the exception of a single family residence or sites less than 10,000 square feet, all lots or subdivisions shall have a storm drainage retardation basin, or other in lieu improvements, approved by Santa Barbara County Flood Control District and the City Public Works Department which will assist in restricting the flow of storm water into the public streets or available drainage facilities. This water must be capable of being stored entirely on private property before overflowing onto/into the public street or drainage facility when the retardation basin becomes full.

The volume, in cubic feet, required on-site is computed as follows:

- a) All sites less than half (1/2) acre:
 - Residential: (0.051)*(area of site in sq. ft.)
 - Commercial/Industrial: (0.070)*(area of site in sq. ft.)
- b) All sites greater than half (1/2) acre but less than one (1) acre:
 - Residential: Interpolate between (0.051) and (0.07)
 - Commercial/Industrial: Interpolate between (0.07) and (0.10)
 - {Multiply times area of site in square feet.}
- c) All sites greater than one (1) acre but less than two (2) acres:

Residential: (0.07)*(area of site in sq. ft.)
Commercial/ Industrial: (0.10)*(area of site in sq. ft.)

- d) All sites greater than two (2) acres shall conform to Santa Barbara County Flood Control District's (S.B.C.F.C.D.) Urban Hydrograph (SBUH) requirements utilizing formulas and procedures as defined therein.

Contact: Santa Barbara County Flood Control and Water Conservation District
Attn: Development Section
130 E. Victoria St., Ste. 200
Santa Barbara, California 93101
(P) 805-568-3440
(Email) pwweb@co.santa-barbara.ca.us
(Web) <http://cosb.countyofsb.org/pwd/pwwater.aspx?id=2956>

10) RETARDATION BASIN DRAINAGE

The retardation basin(s) shall drain completely by means of a bleeder line, to a public drainage facility or street. Gravity is the preferred means of drainage, however if the site is in an extreme sump condition, alternative designs may be submitted to the City for review and discussion. Acceptance of an alternative design will require additional capacity to facilitate a 100-year storm event.

The rate of discharge, in cubic feet per second, shall not exceed the following:
{Multiply times area of site in acres}

- a) All sites less than a half (1/2) acre: (0.045)(area of site in acres)
- b) All sites greater than a half (1/2) acre but less than one (1) acre: Interpolate between 0.045 and 0.07 then multiply times area of site in acres.
- c) All sites greater than one (1) acre but less two (2) acres: (0.07)(area of site in acres)
- d) All sites greater than two (2) acres shall conform to Santa Barbara County Flood Control Districts (S.B.C.F.C.D.) Urban Hydrograph (SBUH) requirements utilizing formulas and procedures as defined therein.

Contact: Santa Barbara County Flood Control and Water Conservation District
Attn: Development Section
130 E. Victoria St., Ste. 200
Santa Barbara, California 93101
(P) 805-568-3440
(Email) pwweb@co.santa-barbara.ca.us
(Web) <http://cosb.countyofsb.org/pwd/pwwater.aspx?id=2956>

11) RETARDATION BASIN HYDRAULIC DESIGN

First determine the retardation basin minimum volume capacity and maximum drainage flow rate as required. The retardation basin is to drain at the required bleeder rate until the water within the basin reaches the basin high water limit. Provide a catch basin or "Christy box" type structure, with the top of grate set at the basin high water elevation for full flow at a twenty-five (25) year event. The drainage structure is to have an inlet bleeder orifice sized using standard hydraulic principles knowing the depth of the basin and the allowable bleeder flow rate. Locate the inlet bleeder orifice at the bottom of the drainage structure with a concrete apron prior to the inlet. Provide an outlet pipe from the bottom of the drainage structure with sufficient capacity for full flow at a twenty-five (25) year event, which is thus drained to a public drainage facility or street. Keep in mind that the bottom of the basin drainage structure is to be at a higher elevation than the flow line of the discharge point.

The design is such that water is let into the drainage structure at the required bleeder rate. The basin fills to

the top of the basin drainage structure and then overflows into the grate or weir. Water is then transported via a pipe, sized for a twenty-five (25) year event to an approved location. If the basin is full and the pipe drainage is flowing at a twenty-five (25) year event capacity the basin is to be provided with an overland escape route or overflow to an approved location which is generally to the street or route of historical flow.

All basins shall slope to drain towards the drainage structure. Landscaped basins should drain at a minimum half (0.50) percent gradient or approved alternative.

The maximum basin drainpipe size permitted through a six (6) inch curb face is three (3) inches or fifty (50) percent of the curb height. Drainage pipes located within the City right-of-way are to be ductile iron pipe or RCP.

12) RETARDATION BASIN LOCATION

Retardation basins should be located within landscaped areas, however they may be provided in impervious areas such as parking lots provided they do not encumber more than fifty (50) percent of an individual parking stall and no inundation of handicapped parking stalls will occur. Impervious surfaces are recommended to be concrete. Asphalt is not recommended, as this material when subjected to standing water becomes a maintenance problem after a few years. Landscaped basins shall have slopes no steeper than four to one (4:1) (four (4) feet of horizontal distance for each one (1) foot of depth) and retardation basins may not encumber more than fifty (50) percent of any landscaped area adjacent to the street frontage.

13) CITY OF SANTA MARIA FLOOD DAMAGE PREVENTION

SANTA MARIA MUNICIPAL ORDINANCE CHAPTER 10 OF TITLE 9.

{A complete copy of this ordinance may be obtained from the Building Division. A portion of this ordinance is provided below for your information.}

SEC. 9-10.166 STANDARDS OF CONSTRUCTION.

In all areas of special flood hazards the following standards are required:

A) Anchoring

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
2. All manufactured homes shall meet the anchoring standards of Sec. 9-10.119.

B) Construction Materials and Methods

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
4. Require within Zones AH or AO, adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C) Elevation and Floodproofing

1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in Sec. 9-10.116C.3. Upon the completion of the structure, the elevation of the lowest floor including basement shall

- be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.
2. New construction and substantial improvement of any structure in Zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in Sec. 9-10.116C.3. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator.
 3. Nonresidential construction shall either be elevated in conformance with Sec. 9-10.116C.1 or 2. or together with attendant utility and sanitary facilities:
 - a) Be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effect of buoyancy; and
 - c) Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator.
 4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a) Either a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other covering or devices provided that they permit the automatic entry and exit of floodwaters; or
 - b) Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
 5. Manufactured homes shall also meet the standards in Sec. 9-10.119.

SEC. 9-10.117 STANDARDS FOR UTILITIES

- A) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- B) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SEC. 9-10.118 STANDARDS FOR SUBDIVISIONS

- A) All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B) All final subdivision plans shall provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.
- C) All subdivision proposals shall be consistent with the need to minimize flood damage.

- D) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E) All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

SEC. 9-10.119 STANDARDS FOR MANUFACTURED HOMES

All new and replacement manufactured homes and additions to manufactured homes shall:

- A) Be elevated so that the lowest floor is at or above the base flood elevation; and
- B) Be securely anchored to permanent foundation systems to resist flotation, collapse or lateral movement in accordance with the provisions of FEMA manual No. 85.

14) FEDERAL GRADING REQUIREMENTS

Authorized by the Federal Clean Water Act, the Federal Government regulates the National Pollutant Discharge Elimination System (NPDES) to control the discharge of pollutants into waters of the United States. The State Water Resources Control Board has jurisdiction throughout California. The Central Coast Regional Water Quality Control Board exercises rulemaking and regulatory activities locally. Together, these agencies have the authority to issue and enforce NPDES permits. The following operations shall apply for coverage under the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit) Order No. 97-03-DWQ NPDES NO. CAS000001, its or any successor permit:

- 1) Manufacturing Facilities
- 2) Oil and Gas/Mining Facilities
- 3) Hazardous Waste Treatment, Storage, or Disposal Facilities
- 4) Landfills, Land Application Sites, and Open Dumps
- 5) Recycling Facilities
- 6) Steam Electric Power Generating Facilities
- 7) Transportation Facilities
- 8) Sewage or Wastewater Treatment Works

The following construction projects shall apply for coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ NPDES No. CAS000002, or any successor permit:

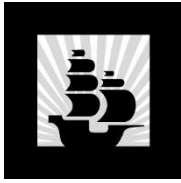
- 1) Any construction or demolition activity that results in a land disturbance of equal to or greater than one (1) acre.
- 2) Construction activity that results in land surface disturbances of less than one (1) acre if the construction activity is part of a larger common plan of development.
- 3) Construction activity on lands currently used for agriculture including the construction of buildings related to agriculture (e.g., dairy barns, food processing facilities).
- 4) Construction activity associated with Linear Underground/Overhead Projects (LUPs) including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities.
- 5) Construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.
- 6) Dredge spoil placement that disturbs one (1) or more acres of land.

Construction projects that intend to disturb one or more acres of land within the jurisdictional boundaries of a CWA §404 permit should contact the Central Coast Regional Water Quality Control Board to determine whether this permit applies to the project. Compliance with State-issued General Permits is a condition of development within the City of Santa Maria.

If you would like additional information on State-issued General Permits, contact the Central Coast Regional Water Quality Control Board, 895 Aerovista Place, Suite 101, San Luis Obispo, California 93401, in writing. Information is also available online at www.waterboards.ca.gov/centralcoast/.

ATTACHMENT "A"
EROSION AND SEDIMENT CONTROL PLAN FORM

[CONTINUED ON NEXT PAGE]



City of Santa Maria
Erosion and Sediment Control Plan
 For Projects Disturbing Less Than One (1) Acre and
 Not Part of a Larger Plan of Development



Plan Check No. _____ **ESCP Approved** _____
 By _____ Date _____

Developers of sites requiring a Grading Permit that disturb less than one (1) acre and are not part of a larger plan of development, are required to submit an Erosion and Sediment Control Plan prior to the issuance of a Grading Permit. Complete all sections and submit with the Grading Plan.

Project Address _____ APN(s) _____

Owner Name _____

Owner Mailing Address _____
Street City State Zip

Owner Phone _____ Email _____

Contractor/Business Name _____

Contractor Mailing Address _____
Street City State Zip

Phone _____ Email _____ FAX _____

Size of Parcel(s) _____ Estimated disturbed soil area _____
Acres sq ft

Type of Project (check all that apply) Residential Commercial Industrial Landscape
 Tenant Improvement Site Work New Construction Remodel Addition

Description of Work _____

Nearest Water Bodies: Santa Maria River Channel _____ Basin _____
Name Name

Distance of Water Bodies from Project _____ Project Phase _____

Project Threat to Water Quality based on: 1) the amount of sediment that may potentially become discharged; and 2) the risk that sediment discharges pose to the receiving water Low Medium High

Anticipated Start of Project _____ Anticipated Completion _____
Date Date

Other Applicable Permits (check all that apply) US Army Corps 404 Construction General Permit
 401 Water Quality Certification CA Fish & Wildlife Agmt _____
Other (Identify)

Any permits directly associated with grading activity shall be obtained prior to commencing any soil disturbing activities.

THE FOLLOWING INFORMATION IS REQUIRED FOR ALL EROSION AND SEDIMENT CONTROL PLANS.

1. **Site Plan** Applicant shall provide a site plan as part of the grading plan with the following information: show all Best Management Practices (see below) to be placed on and off site; north arrow; slope direction; scale; location of all existing structures and impervious surfaces; location of any nearby waterways or basins; nearby storm drain inlets; frontage and side streets; and existing vegetation and trees.
2. **Best Management Practices (BMPs)** At a minimum, the following BMPs are required. Verify ALL of these measures are addressed on the project site plan submittal.
 - A. **Wet Weather Measures** If possible, avoid land-disturbing activities during the wet weather season of October 1 through May 31.
 - B. **Existing Vegetation** Protect existing vegetation wherever possible.
 - C. **Sweeping** All impervious surfaces shall be swept-not washed or hosed down-and maintained free of debris and accumulations of dirt.
 - D. **Waste Management** All construction waste including paint, concrete, or any other type of wash out, shall be contained and disposed of properly; no construction material shall be washed to the street.
 - E. **Vehicles and Equipment** Responsible parties for your site shall be responsible for ensuring all construction vehicles and equipment will not cause dirt or mud to be tracked off site.
 - F. **Catch Basin Protection** Catch basins or drop inlets that receive storm water must be covered or otherwise protected from receiving sediment, mud, dirt, or any debris.
 - G. **Sediment Filters/Barriers** A properly installed silt fence or equivalent shall be installed around the site perimeter and located so that all runoff from the construction site is filtered prior to leaving the site.
 - H. **Plastic Sheeting** Tarps or equivalent shall be used to protect small, highly erodible areas, temporary stockpiles of material, and haul trucks.

3. **Site-Specific BMPs** List all site-specific BMPs not listed above _____

4. **Rationale** Explain the basis for selecting site-specific BMPs; provide soil loss calculations if necessary

Contractor shall inspect BMPs regularly and prior to storm events. Contractor shall maintain BMPs in good repair at all times.

RESOURCES
City of Santa Maria Clean Water Website: www.santamariacleanwater.org
Santa Barbara County Project Clean Water Website: <http://www.sbprojectcleanwater.org/development.aspx?id=76>
CASQA Handbooks: www.cabmphandbooks.com
2010 Green Building Code Standards: www.documents.dgs.ca.gov/bsc/CALGreen/2010_CA_Green_Bldg.pdf