

## **Appendix D: Guidance on Preparation of Required Reports**

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### ***Corps of Engineers Wetlands Delineations Manual***

<http://www.saj.usace.army.mil/permit/documents/87manual.pdf>

### ***USACE link to Wetlands Publications***

<http://www.wes.army.mil/el/wetlands/wlpubs.html>

### ***FishXing: Software and Learning Systems for fish passage through culverts***

<http://stream.fs.fed.us/fishxing/pointers.html#design>

### ***Grading Plans for Submittal to the County of Santa Cruz***

In order to apply for a Grading Permit from the County of Santa Cruz, the following materials are required:

- Grading plans (four copies) that show in detail all grading work proposed. A list of grading plan requirements is provided below. If grading activities will exceed 2,000 cubic yards of material, the plan must be prepared by a registered civil engineer. Although projects involving less than 2,000 cubic yards are not automatically required to be prepared by an engineer, an engineer's expertise will be extremely helpful and is highly recommended, even for smaller projects. The Planning Department may require engineered plans for smaller projects on problematic sites.
- A completed application form with the property owner's (or his/her authorized agent's) signature. (Note: this is required only for "stand-alone" grading projects.)

#### *Contents of the Grading Plan:*

Grading plans must include the following on an 18" x 24" (minimum) blueprint:

- a) Name and address of property owner
- b) Assessor's Parcel Number (APN)
- c) Name and location of existing, adjacent streets
- d) Vicinity map
- e) Intended use or purpose of work
- f) North arrow and scale of drawing
- g) Site plan including entire parcel (APN) with area of proposed grading indicated and enlarged for clarity if necessary
- h) Existing structures, utilities, trees, watercourses, or any other topographical features of interest
- i) Details of proposed structures, including retaining walls
- j) Property lines, setbacks, or building envelopes
- k) Existing and proposed contours. Topographic information must be at a suitable scale to insure clarity. Minimum contour intervals are as follows:

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| <u>Slope of Existing<br/>Ground</u> | <u>Contour<br/>Interval</u> |
|-------------------------------------|-----------------------------|
| 0-5%                                | 1 ft.                       |
| 5-15%                               | 5 ft.                       |
| >15%                                | 10 ft.                      |

- l) Volume of proposed grading for both cuts and fills
- m) Cross-sections of cuts, fills, building pads, and driveways (including property lines where appropriate)
- n) Clearly defined “*limits of grading*” activities (disturbed area)
- o) Toe and top of cut and fill slopes
- p) Profiles of proposed driveways and access roads (including gradient and stationing)
- q) Width, radius, and drainage facilities for driveways and access roads
- r) Proposed structural sections (sub-base, base, and pavement) for driveways and access roads (including compaction requirements)
- s) Existing and proposed locations of all septic disposal systems (tanks, leach fields, and expansion areas)
- t) Existing and proposed drainage facilities including culverts and other structures as appropriate
- u) An adequate erosion control plan including appropriate details and specifications
- v) Signature and stamp of civil engineer (if required) or architect

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