

GRADING AND DRAINAGE PLAN CHECKLIST

<b>Please Note:</b> This checklist summarizes major and typical topics of review. Site specific issues can and will produce additional comments.				
Project ID / Description:				
Reviewer / Date:				
<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>ITEM OR DESCRIPTION</b>	
<b>GRADING PLAN SUBMITTAL REVIEW</b>				
			Completed and Signed Grading & Drainage Permit Application	
			Completed and Signed Hydrant Water Exception Application (if applicable)	
			Three (3) copies of Grading & Drainage Plan	
			10 Year Hydraulic Calculations for onsite storm conveyance system	
			Project Earthwork Specifications	
			Approved Geologic Hazard Clearance (if site is in City Geologic Hazard Zone)	
			Three (3) wet signed / sealed copies and of Liquefaction Report (if site <b>is</b> in State Seismic Liquefaction Zone) <b>OR</b> One (1) copy of the Geotechnical Report (if the site is <b>not</b> in State Seismic Liquefaction Zone) dated within 3 years.	
			<b>Two (2) sets of signed and stamped Structural Calculations submitted for Temporary Shoring? (if applicable)</b>	
			<b>Two (2) sets of signed and stamped Structural Calculations for Retaining Wall submitted? (if applicable)</b>	
			Erosion and Sediment Control Plan (Type 1 or Type 2 project) or if Type 3 or 4, add Blueprint for a Clean Bay to plans.	
			Stormwater Control Plan - for sites with new, added and/or replaced impervious surfaces of at least 5,000 SF or 10,000 SF for stand-alone single-family projects.	
			City Fees	
<i>Submittal and review of the following items can be deferred to the permit issuance stage, however <b>postponing the review of these items will delay issuance of the grading permit.</b></i>				
			Notice of Intent (NOI) filed - for sites disturbing one acre or more of land. Provide confirmation of submittal to the Regional Water Quality Control Board.	
			Shoring Plan (if required by excavation activities, not required for utility trenches)	
			Retaining Wall Plan	
<b>GRADING &amp; DRAINAGE PLAN TECH. REVIEW (Non-compliance with bold items can trigger rejection of submittal)</b>				
<b>Procedural Requirements</b>				
			Project has Environmental Clearance?	
			Burrowing owl report or other Planning Environmental Mitigations? (if required by Planning permit)	
			Elevation Certificate? (if necessary)	

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Yes	No	N/A	ITEM OR DESCRIPTION
			<i>Formatting Requirements (Use of standard CAD coversheet will address most of these items)</i>
			<b>Plan drawn clearly? (Topo and all text is legible)</b>
			<b>Plan on 24" x 36" sheets?</b>
			<b>Plan drawn to appropriate Engineer's Scale? (Min. 10ft/inch - Max. 40ft/inch)</b>
			Plan based on standard coversheet and border? (Recommended, not required)
			Scale shown on every sheet?
			Plan includes a vicinity map?
			Plan includes a north arrow?
			Plan includes a complete standard legend which is implemented in drawings?
			Plan includes approval signature block?
			Plan includes standard grading notes?
			All streets have names?
			Sheet numbers on all sheets? (i.e. Sheet 2 of 3)
			<i>Technical Requirements</i>
			Quantities of cut, fill, import and export shown on plan in cubic yards (CY)?
			<b>Plan shows existing ground contours?</b>
			Property limits shown?
			<b>Spot elevations shown on-site?</b>
			Spot elevations shown off-site, sufficient to allow assessment of potential stormwater impacts/runoff on adjacent properties?
			Flow lines, or at least top of curb elevations shown?
			Rim and invert elevations shown?
			Plan shows location of proposed/existing buildings?
			<b>Plan shows finished floor and pad elevations of new buildings?</b>
			<b>Plan shows all surface and subsurface drainage devices?</b>
			<b>Plan shows cross-sections at critical points along boundary?</b>
			No abrupt grade changes at the property or boundary line?
			Proposed slopes not greater than 2:1?
			Slope setbacks meet code requirements?

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			Grades of paved areas > 1% for PCC and > 1.5% for AC?
			Grades within 10 feet of structure conform to Section 1804 of 2016 California Building Code (or latest adopted code)? (5% slope for unpaved areas and 2% slope for paved areas)
			<b>Overland release path and its elevation shown?</b> Use standard large arrow (small thin arrows are for typical drainage flow in a non-failure situation). Must illustrate where stormwater flows in the event of a total failure of the entire underground drainage system.
			No excessive or concentrated flow into the adjacent parcel?
			If Overland Release is directed into an adjacent parcel, has a proper easement been provided to allow such drainage?
			Finished floor elevation 1 foot above release high point
			Drainage away from garage(s)?
			Ponding less than 1 foot in depth?
			Plan shows location of all trees 18 inches or larger?
			Plan shows special details? (Grading related only)
			Stormwater Control Plan included? (if applicable)
			The Stormwater Control Plan clearly indicates the following: site design measures, source control measures, all Treatment Control Measures (TCM's), distinct drainage boundaries for each TCM (drainage boundaries can't share TCM's), details for each type of TCM, installation and long term maintenance notes for each type of TCM and TCM summary Table?
<b>GRADING STORMWATER (C3) PLANS TECH. REVIEW</b>			
			Drainage arrows are shown to identify where and how stormwater runoff will enter the Bioretention areas (i.e. bubbler box, curb cuts, etc.)?
			All downspouts shown to indicate where and how roof drainage will enter Flow-Through Planter (FTP)?
			Energy dissipators (cobles or rocks) are shown to avoid erosion at the point where runoff enters the Bioretention or FTP area?
			Overflow structures are located away and not directly in line with curb openings?
			Perforated pipe underdrain system shown within Bioretention or FTP area with length, slope and material called out on grading plan or stormwater utility plan?
			Rims and inverts called out at clean out and overflow riser and are consistent with the Bioretention and FTP details on grading plan or stormwater utility plan?
			Perforated pipe underdrain system shown within Pervious Pavement/Concrete areas with cleanouts shown and length, slope, pipe material called out on grading plan or stormwater utility plan?
			Rims, inverts and top of subgrade elevations called out at clean outs consistent with the Pervious Pavement/Concrete details on grading plan or stormwater utility plan?
			All curb openings shown on Grading and Drainage plan?
			Curb openings spaced a minimum 10' apart?

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			Curb openings <u>do not</u> line up with overflow riser structure?
			Bubbler box placed outside of Bioretention area? Rim raised above overflow riser height?
			All appropriate details included on SCP or Detail sheet (Bioretention, FTP, curb opening, bubbler, etc.)?
			A 2-inch minimum drop from flowline to finish grade of landscape is provided?
			Height of FTP planter wall or curb adjacent to Bioretention areas does not exceed 4' in total height (top of wall to bottom of footing)? If Yes, see Retaining Wall Section below.
			Drainage Management Area's (DMA) shown clearly on SCP?
			DMA's contain only one Treatment Control Measure (TCM) and TCM is appropriately sized?
			SCP contains new TCM sizing calculations for any revised DMA boundaries from the Planning stage?
			Values shown on the Treatment Control Measure Summary Table are correct?
			Operation and Maintenance Information included for all TCM Types?
			Site specific Source Control Measures, Site Design Measures and Responsible Party included on SCP?
<i>Once Plan is Ready for Approval</i>			
			Title Block – signed & stamped by a Registered Engineer in the engineering firm?
			Plan signed and sealed by project Geotechnical Engineer?
			Plan signed and sealed by project Engineering Geologist? (If the project is in a GeoHazard Zone, Seismic Hazards Landslide Zone)
<b>TECHNICAL REVIEWS FOR SHORING, RETAINING WALL AND EROSION CONTROL PLAN REVIEW</b>			
<b>SHORING PLAN REVIEW</b>			
			<b>Plan drawn clearly? (Topo and all text is legible)</b>
			<b>Plan on 24" x 36" sheets?</b>
			Plan contains north arrow, legend, and scale? (If applicable)
			Plan contains City of San Jose standard showing notes as well as all applicable general shoring notes, procedures for installation of soldier piles/tiebacks, monitoring program, special inspection items, materials, etc.?
			All applicable details for tieback, anchorage, railing, lagging, soldier piles, etc.?
			Location of any existing buildings, structures, wells, street improvements or utilities (storm, sewer, gas, water, etc.) on the property and within the public right-of-way or adjacent property(s) that can be potentially impacted by the shoring operation shown?
			Revocable Encroachment Permit Applied for? (if proposing tie backs are extending into City right-of-way)

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<b>RETAINING WALL PLAN REVIEW</b>			
			<b>Plan drawn clearly?</b>
			<b>Plan on 24" x 36" sheets?</b>
			Plan contains north arrow, legend, and scale? (if applicable)
			Plan contains all applicable general notes, procedures for installation of retaining wall, special inspection items, materials, etc.?
			All applicable details for retaining wall construction? (foundation, material specifications, reinforcement, etc.)
			Special Inspection Short Form filled out by Structural Engineer for review?
<b>EROSION CONTROL PLAN REVIEW</b>			
			<b>Plan drawn clearly? (Topo and all text is legible)</b>
			<b>Plan on 24" x 36" sheets?</b>
			Plan based on standard coversheet and border? (Recommended, not required)
			Plan includes standard erosion control notes?
			Plan includes details for erosion control measures proposed?
			Plan includes Best Management Practices (BMP) Summary Table and is filled out with the BMPs being implemented on the site? (Table can be found on standard Erosion Control Border CAD file - BMPs implemented on the site must be spelled out, do not refer to detail numbers)
<i>BMPs in Following Six Categories</i>			
			Plan includes Erosion Control (i.e. hydroseeding, straw mulch, geotextiles & mats, wood mulching, earth dikes & drainage swales, etc.)?
			Plan includes Sediment Control (i.e. silt fence, sediment basin, check dam, fiber rolls, gravel bag berm, street sweeping & vacuuming, straw bale barrier, storm drain inlet protection, stabilized construction entrance, tire wash area, etc.)?
			Plan includes Good Site Management (i.e. material delivery & storage, stockpile management, concrete washout, spill prevention & control, hazardous waste management, above ground storage tank, street sweeping, portable toilet, etc.)?
			Plan includes Non-Stormwater Management (i.e. dewatering, vehicle equipment and cleaning, fueling, and maintenance, temporary stream crossing, etc.)?
			Plan includes Run-on and Run-off Control (i.e. direct run-on from off-site away from disturbed area, surface roughening, earth dikes and drainage swales, etc.)?
			Plan includes Active Treatment Systems (i.e. coagulation and flocculation), if necessary?