



City of Phoenix

STORMWATER PLAN REVIEW CHECKLIST Municipal Projects Only Street Transportation Department

Project Name:			
Project Number:			
Contract Number:			
Agreement Number:			
Department:			
Plan Reviewed by (e.g., design engineer):		Date:	
Department PM:			
Contractor, if applicable:			
Estimated Start Date:		Estimated Duration:	
If plan review by PDD:			
KIVA #:			
Reviewed By:			
STOP here (PDD will review using PDD G&D Plan Review Checklist).			

Return completed forms to all the below by clicking on the "Send" button. The department PM is responsible for the accurate and full completion of this form:

Department Environmental Contact
Office of Environmental Programs (OEP)

* For internal tracking purposes, the project name & project number must also be provided to OEP and the Department Environmental Contact for projects submitted to PDD for G&D Plan Review.

1. Is project > 1 acre or <= 1 acre, but part of a larger common plan of development? <i>(MS4 Permit 4.7.B)</i>	Yes No	
Total Acres:		
Total Acres Disturbed:		
2. Has project information been submitted to department environmental contact for addition to the MS4 inventory? <i>(MS4 Permit 4.7.C)</i>	Yes No <small>*submit prior to 100% design</small>	Date:
3. Prioritization Criteria (select one):		
High Priority Projects (inspected every 3 months during active construction):		
a. Projects that disturb more than 5 acres, and		
b. Are within ¼ mile of a water of the US (WOTUS) and have a direct discharge path to WOTUS via surface channel or storm drain (i.e., do not discharge to an intermediary detention basin or non-WOTUS water body/channel before potentially entering WOTUS)		
Standard Priority Projects (inspected every 6 months during active construction)		
4. Post-Construction Stormwater Controls		
Does the project have any post-construction stormwater controls, such as a retention or detention basin, drywell, pretreatment device, green infrastructure (bioswale, permeable surface, curb opening/extensions), etc.? If yes, please provide the following information: Type(s): Number: Location: Owner (department):		
Note: Device will be added to the City's Post Construction BMP Inventory		

ENG	Review	NOTES FOR STORMWATER MANAGEMENT PLAN (All notes to appear on General Notes sheet)
If #1 above = Yes		
		An AZPDES Construction General Permit (CGP) and associated Stormwater Pollution Prevention Plan (SWPPP) will be needed.
		A copy of the grading and drainage plan for this project, together with a copy of the Notice of Intent (NOI) and the SWPPP shall be maintained on the site and available for review.
ALL PROJECTS		
		Contractor is expected to comply with Phoenix City Code 32C.
		A copy of the grading and drainage plan for this project, together with a copy of the Storm Water Management Plan (SWMP) or SWPPP, shall be maintained on the site and available for review.
		The Department Environmental Contact shall be notified 48 hours before any on-site soil disturbance begins.
		The contractor shall obtain a Dust Control Permit from Maricopa County Health Department and perform measures as required by the permit to prevent excess dust.
		The contractor shall perform, at a minimum, a visual inspection of the construction site as required under the Construction General Permit (CGP), where applicable. The contractor shall prepare a report documenting his/her findings on the conditions of the stormwater controls and note any erosion problem areas. The contractor's report is to be maintained with the SWPPP/SWMP. Facilities (stormwater management controls) shall be maintained as necessary to ensure their continued functioning. In addition, all temporary siltation controls shall be maintained in a satisfactory condition until such time that clearing and/or construction is completed, permanent drainage facilities are operational, and the potential for erosion has passed.
		The contractor shall amend the SWPPP/SWMP as necessary during the course of construction to resolve any problem areas, which become evident during the construction and/or during rainfalls.
		The permittee shall file a Notice of Termination (NOT) after completion of construction and placement of final landscape materials. The NOT is to be submitted to the City's Department Environmental Contact.
		The contractor shall save all records, including the NOI, SWMP, NOT, and inspection reports, on file for a minimum of three years from the date of filing the NOT.
		The implementation of these plans and the construction, maintenance, replacement, and upgrading of these facilities is the responsibility of the operator/contractor until all construction is approved and the NOT is submitted.
		The facilities (controls) shown on the plan must be constructed in conjunction with all clearing and grading activities in such a manner as to insure that sediment-laden water does not enter the drainage system or violate applicable surface water quality standards, and must be installed and in operation prior to any grading or land clearing. Wherever possible, maintain natural vegetation for silt control.

PLAN REVIEW CHECKLIST

ENG	Review	
		<p>Does the plan include adequate erosion and sediment stormwater control measures and BMPs protective of water quality? (<i>MS4 Permit 4.7.F</i>) Such as (examples only):</p> <ul style="list-style-type: none"> o Maximum fill and cut slopes; o Maximum bench heights and widths; o Types of allowable fill materials; o Fill compaction and requirements; o Setbacks of fill slopes from property boundaries; o Treatment of fill slopes and other slopes to prevent erosion from stormwater runoff; o Requirements for maximum fill/cut slopes for drainage channels; o Terracing drainage requirements, including erosion controls; o Subsurface drainage controls for stability; and o Drainage way erosion control provisions.

ENG	Review	
		<p>Do the grading and drainage design plans address applicable stormwater municipal ordinances and requirements for structural and nonstructural stormwater control practices in new development and redevelopment? (e.g. Phoenix City Code (PCC) Chapters 32, 32A, 32B, 32C and Storm Water Policies and Standards Manual) (<i>MS4 4.8.A.1.a.i, ii & iii</i>)?</p> <p align="center">Yes No</p>
		<p>Do the plans follow the 2013 City of Phoenix Storm Water Policies and Standards Manual) (<i>MS4 Permit 4.8.B.1</i>).</p> <p align="center">Yes No</p>
		<p>Has temporary and final stabilization been addressed? (e.g. native seeding, asphalt, rock, vegetation, etc.) (see also ADEQ 2020 Construction General Permit Section 3.4, as applicable).</p> <p align="center">Yes No</p>

ENG	Review	
		<p>Which of the following apply to this project?</p> <p align="center">NOI & SWPPP Required (CGP) SWMP Required (PCC 32C)</p>

ENG	Review	
		<p>Have selected BMPs to protect the MS4 been reviewed (i.e., in specifications/plan notes)? (for example, inlet protection, perimeter protection, stabilized entrance/track-out mitigation, chemical storage, stockpile management, concrete wash-out, etc.)</p> <p align="center">Yes No Not Applicable</p>

ENG	Review	
		Provide a copy of stormwater BMP location map. Include inlet protection locations, perimeter protection, stabilized entrance/track-out mitigation, chemical storage, concrete wash-out location, yard, etc., as applicable.
		Have catch basins been identified? Yes No Not Applicable Not in project area

ENG	Review	Dry wells
		Are any dry wells being installed? Yes No
		Is there a Hazardous Material within dry well drainage area (e.g., gasoline, diesel, chemicals)? Yes No *If yes, an Aquifer Protection Permit may be required. See Department Environmental Contact.
		If yes, is there secondary containment for the hazardous material? Yes No Not Applicable
		Dry wells are not required to be shown on the plan set for retention basins with depths of less than one foot (basin outfall elevation – bottom elevation).
		Dry well is not to be located within any groundwater saturated zones.
		Dry well shall dispose of only stormwater run-off.
		The following notes are required on Grading & Drainage plans when a dry well is to be installed: A. The owner/developer shall be responsible for registering the dry wells shown on the Grading and Drainage plan with the Arizona Department of Environmental Quality (ADEQ). For information about specific requirements, see Department Environmental Contact. B. Dry wells must be drilled a minimum of 10 feet into permeable porous strata or percolation tests will be required. The City's inspector for grading and drainage must be present before backfill or well pipes are placed within any dry wells. C. The owner/developer is responsible for installing drywell(s) should the retention basins fail to drain within 36 hours.
		Dry well detail and specifications need to be shown on Grading and Drainage plans.
		Grate elevation for the dry well needs to be shown on Grading and Drainage plan at minimum of 0.3 feet above bottom of retention basin (allows for silting). For bleed-off to city storm drain system the grate needs to be 0.75 feet above bottom of basin.

ENG	Review	Retention/Detention Basin
		Per Section 6.1.10.1 of the City of Phoenix Storm Water Policies and Standards, for engineered channels and storm water storage facilities/basins with geometric depths greater than three feet deep, access ways to the channel or basin, and ramps into the channel or basin, shall be required (see section 6.1.10.4 for access way ramp requirements). For engineered channels or storm water storage facilities/basins with geometric depths of three feet or shallower with a portion of side slope set at 6:1 or flatter along at least one side to allow for emergency or ordinary maintenance vehicle access, ramps into the channel or basin are not required.

ENG	Review	Retention/Detention Basin, Con't.
		Grading and Drainage Plan approval includes the construction of all surface improvements shown on the approved plan, including, but not limited to, retention areas, sedimentation basins, and/or other drainage facilities, drainage patterns, walls, curbs, asphalt pavement, and building floor elevation.
		Grades shown in retention basins are design finished grades. Should the contractor or any sub-contractor plan to place spoil dirt from footings, utility trenches, landscaping, swimming pools, etc. in the basins, the basins should be sufficiently over-excavated during the rough grading operation to allow for the placement of the fill or landscaping materials.
		Contractor is responsible for locating and confirming depths of all the existing utility lines within proposed retention basin areas. If the basin cannot be constructed per plan because of conflicts, the contractor should discuss modification of basin configuration with the city inspector to determine if a plan revision or a field change is required.
		All drainage protective devices such as swales, interceptor ditches, pipes, protective berms, barrier walls, concrete channels, or other measures designed to protect adjacent buildings or property from storm runoff must be completed prior to building construction.
		Per Section 6.8.7 of the City of Phoenix Storm Water Policies and Standards, side slopes of storm water storage facilities shall be no steeper than 5:1 for irrigated grass areas and 3:1 for landscape areas. Slope stabilization measures are required for all slopes greater than 5:1. The slope stabilization measures must be readily maintainable using common maintenance equipment and be designed with consideration to aesthetics. The slope stabilization measures shall be consistent with commonly used engineering practices. Un-stabilized decomposed granite is not allowed on slopes greater than 5:1.
		If Applicable: Construction must be phased so the newly aligned channel is fully operational before the existing drainage channel is filled. Flood water conveyance must be maintained at all times during construction.
		Existing irrigation supply ditches and/or irrigation tail water ditches on this site, or in the right-of-way adjacent to this site, must be replaced with an underground pipeline, or abandoned subject to the approval of the irrigation company and/or downstream users. Limits of construction and scope of work shall be shown on the plan
		Show side slopes, bottom elevation, high water elevation, outfall elevation, location and direction of basin overflow, volume provided, and volume required for all retention/detention basins.
		All HDPE storm drain pipe shall be manufactured, designed and installed in accordance with AASHTO M252, AASHTO M294, MAG and city of Phoenix Supplements to MAG and these special provisions.
		All HDPE storm drain pipe shall be Type 'S' corrugated, with watertight joints. HDPE pipe shall not be allowed within a minimum of twenty-four (24) linear feet of an open outfall. The outfall section of storm drain pipe shall be concrete or concrete-lined as shown on the plans.
		At a minimum, all HDPE storm drain pipe joints shall meet the ASTM D-3212 watertight requirement of 10.8 psi (25 column feet of water head).
		All HDPE pipe connections to manholes shall meet ASTM C-923 requirements.
		Before grading in areas containing native desert vegetation, the Contractor must obtain a permit from Arizona Department of Agriculture. For information, see Department Environmental Contact.
		If property is adjacent to the Phoenix Mountain Preserve, no disturbance of preserve property for access, grading, or other construction purposes will be allowed. The contractor is required to delineate the Mountain Preserve boundary with a temporary fence or other acceptable methods.

ENG	Review	Retention/Detention Basin, Con't.
		If site has special preservation or hillside issues, the grading plan must show all landscape preservation easements, construction fencing locations, and appropriate areas labeled. Prior to any clearing, grubbing, or grading operations, construction fencing shall be shown on approved plans, permitted and inspected and salvage operations permitted, inspected, and completed.
		Phased developments shall indicate interim slopes and grades to match proposed work to existing conditions.
		Grading Plans showing existing natural washes shall also show existing conditions including line and grade of the wash flow line at 50 ft. intervals. Show distances between banks and elevations at 50 ft. intervals. Show cross sections and high water elevations every 100 feet on washes impacting site.
		Show the extreme storm outfall and label it with an elevation.
		Show side slopes, bottom elevation, high water elevation, outfall elevation, location and direction of basin overflow, volume provided, and volume required for all retention/detention basins.
		Show the limits of any designated floodplain, including the "Selected Floodway" as established on the official Federal Insurance Rate Maps (FIRM). Include all applicable 100-year water surface elevation lines which traverse the project site.

ENG	Review	Additional Divisions may also need to review the plans, based on Department Policy: Environmental Maintenance/Facilities

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