



City of Bastrop, Texas

Final Drainage Plan Checklist

Planning Department • 1311 Chestnut Street • 512-332-8840

APPLICANT:		OFFICIAL USE ONLY	
Included in Submittal	Bastrop Ordinance 2019-36 – Stormwater Drainage Design Manual – Appendix C requires:	Meets Standard	Does Not Meet Standard
	1. Final Drainage Plans. Upon approval of the preliminary drainage study, the developer shall submit detailed plans, specifications and cost projections prepared by a registered professional engineer registered in the State of Texas and experienced in municipal drainage work. Existing and proposed flow lines of all improvements shall be shown. Unless otherwise specified herein, drainage requirements shall be based on the City of Bastrop Stormwater Drainage Design Manual. The Hydraulic Manual prepared and compiled by the Texas Department of Transportation Bridge Division, with current revisions, may be used in cases not covered by the City of Bastrop Stormwater Drainage Design Manual. The following shall be included in the Plans:		
	1.a. Final drainage site plan, which includes all the revised elements included in the preliminary drainage site plan, plus a construction stormwater pollution prevention plan (SWPPP), a landscaping plan, stormwater maintenance plan, maintenance agreement (if needed), financial guarantee, stormwater permit application, evidence of acquisition of applicable federal and state permits, and any waiver requests		
	1.a.1. Existing and proposed topographic information, with minimum two-foot contour intervals.		
	1.a.2. Location map.		
	1.a.3. Off-site and on-site drainage area maps.		
	1.a.4. Centerline of watercourses.		
	1.a.5. Regulatory flood elevations and boundaries of flood prone areas, including Floodways where designated.		
	1.a.6. Drainage easements.		
	1.a.7. All street widths and grades.		
	1.a.8. Calculations showing the anticipated stormwater flow, including watershed area, runoff coefficient, and time of concentration. When a drainage structure or storm sewer is proposed, calculations shall be submitted showing basis for design.		
	1.a.9. Storm sewer plans and profiles showing size, grade, and pipe or culvert material. Runoff, inlet, conduit hydraulic grade line calculations are required.		
	b. Final grading and drainage construction plans, indicating two-foot contours. All street width and grades shall be indicated on the plan, and runoff figures shall be indicated on the outlet and inlet side of all drainage ditches and storm sewers, and at all points in the street at changes of grade or where the water enters another street or storm sewer or drainage ditch. Drainage easements shall be indicated. A grading plan shall be prepared for each subdivision and show in sufficient detail grading of all roads, streets, drainage structures, channels, swales, or other drainage related features and provide minimum finished floor elevations, based on an acceptable elevation datum, for proposed structures to assure a minimum of two feet (2') of freeboard to computed flood elevations for the rainfall runoff events for a one hundred (100) year frequency storm.		
	c. The location and dimensions of proposed storm drainage easements. The limits of the one hundred-year floodplain shall be shown and encompassed in a dedicated easement (see paragraph gg below). Minimum finished floor elevations at least two feet (2') above the one hundred-year (100-year) water surface elevations shall be shown for any lot within the 100-year and five-hundred-year floodplain, or adjacent to any channel, sump inlets or drainage facilities. For water courses and easement: Distances to be provided along the side lot lines from the front lot line or the high bank of a stream. Traverse line to be provided along the edge of all large water courses in a convenient location, preferably along a utility		

		easement or drainage if paralleling the easement or stream. The 100-year flood plain easement shall be shown where applicable. A note shall be provided prohibiting construction within the 100-year flood plain except for public streets or roads and utilities.		
	d.	When a drainage channel or storm sewer is proposed, complete plans, profiles and specifications shall be submitted showing complete construction details. Scales shall be no greater than one inch equals to forty or fifty feet (1" = 40' or 50') horizontally and one inch equal four or five feet (1" = 4' or 5') vertically.		
	e.	Two (2) copies of detailed cost estimates.		
	f.	A plan of the development shall be submitted depicting the final grading contours and elevations, earthwork, slopes, retaining walls, minimum finished floor elevations of all affected structures, and any other information considered necessary by the City Engineer at a scale of one inch is equal to one hundred feet (1" = 100') minimum.		
	g.	Complete detention pond plans and calculations.		
	h.	All drainage calculations are required to be present on the plans or in an engineering report signed and sealed by an engineer licensed in the State of Texas. Computations shall be complete and orderly and shall clearly state all assumptions and design basis.		
	i.	<p>The following full statement of restrictions shall be placed in the dedication instrument of any subdivision plat that contains land designated as part of a one hundred-year (100 year) floodplain by FEMA:</p> <p>"Floodplain Restriction No construction shall be allowed within a floodplain easement unless specifically approved by the City of Bastrop. Where construction is permitted, all finished floor elevations shall be a minimum of two (2) foot above the base flood elevation (100-year flood or one percent probability flood elevation.)</p> <p>Any existing creeks, lakes, reservoirs, or drainage channels traversing along or across portions of this addition, will remain as an open channel at all times and will be maintained by the individual owners of the lot or lots that are traversed by or adjacent to the drainage courses along or across said lots. The City of Bastrop will not be responsible for the maintenance and operation of said drainage ways or for the control of erosion. Each property owner shall keep the natural drainage channels traversing adjacent to their property clean and free of debris, silt, or any substance which would result in unsanitary conditions and the City shall have the right of ingress and egress for inspection and supervision of maintenance work by the property owner to alleviate any undesirable conditions which may occur. The natural drainage channel, as in the case of all-natural drainage channels, is subject to storm water overflow and natural bank erosion to an extent that cannot be defined definitively. The City of Bastrop shall not be liable for damages of any nature resulting from the occurrence of these natural phenomena, nor resulting from a failure of any structures within the natural drainage channels. The natural drainage channel crossing each lot is shown by the floodplain easement line as shown on the plat."</p>		